

MAN IN INDIA

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CASTE IN INDIA

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THE PROBLEM

CASTE in India has suffered from a large amount of adverse criticism. The general view is that it has stood for inequality and oppression; while, by encouraging sectional interests, it has acted, on the whole, against the growth of national and political unification. Yet, as students of social history, we cannot overlook the fact that the system has endured for many centuries, and the loyalty evinced by the lower and suppressed classes to the system even at the present time, remains inexplicably strong. There have been revolts against the system several times in the past, but the fate of most of these movements has been singularly tragic. Very often, they ended by adding one more to the number of castes, instead of actually being able to weaken the roots of the system itself.

As sociologists, we have to explain where the source of this vitality actually lies. For, unless we are able to do so correctly, we are likely to be defeated when we try to explain many of the happenings of Indian history, or have to create favourable conditions for our national regeneration.

One school of historians holds that the sacerdotal caste in India was formed by an excessively clever set of people, who by wise utilization of the power of the State, and by means of skilful and extensive religious propaganda, succeeded in preventing all manner of revolt for an indefinite period of time. This explanation has two aspects. We should remember that the strength of the caste system does not seem to have been impaired even after the hostile Muslims rose to power, and that Muslim converts have continued to obey the caste rules of occupational monopoly and not a very rigid endogamy in rural areas even up to within very recent times. So that the argument that caste was mainly held up by political power in favour of

the sacerdotal caste, loses much of its value. Secondly, the Theory of Karma, by means of which Brahmins are supposed to have hoodwinked the common people, was itself a double-edged weapon. The same theory which helped to keep the people resigned to their fate, became, in Buddha's hands, an instrument of revolt. Buddha held, according to the Theory of Karma, that birth was nothing; all that mattered for the individual was what he personally did. Brahmins found in the theory a plea for fatalism, while Buddha converted it into a plea for enterprise.

Racial and geographical reasons have also been suggested for the infrequency or weakness of several recorded revolts against caste. It is not necessary to go into details; but perhaps it will suffice to say, generally, that Indians do not all belong to the same racial stock, and the elements of which they are compounded have not evinced a like character of submission in other parts of the world. The geographical explanation is also insufficient; because the character of the Indian people has not remained the same all through recorded history, while the geographical conditions during this time have not fluctuated to an equal extent.

The proposed explanations do not thus appear to be adequate for our purpose. We have therefore to look for more facts before we can venture upon a more probable explanation of the observed strength of the social system in question.

THE ECONOMIC ORGANIZATION OF CASTE

Even a cursory examination of the Census Reports reveals the fact that the majority of castes have a traditional calling. When a Muchi or leather-worker is found engaged as a farm-labourer, he admits that working in leather is his hereditary occupation, and he has been forced to change it because the original one was found no longer paying. Thus a Kamar is a blacksmith, a Kayastha, by tradition, a clerk in Bengal, although, in actual fact, he may deal in leather, boots and shoes.

If we examine the various references to castes in the law-books, we find that the need of a clear differentiation of occupations was recognized quite early in history. Indeed, this recognition was a great step in India's industrial progress. In the Vedic times, members of the same family apparently pursued a variety of occupations. The son of a carpenter or chariot-maker could be a poet. But later on this elasticity seems to have been gradually restricted, and stricter rules were enjoined on the choice of occupations. By the time of the

Manava Dharmasastra, the tradition had almost become rigid, that particular *jatis* or castes were to follow particular occupations. Not that any change in this respect was totally forbidden; but in every respect, such a departure was clearly recognized as an exceptional practice, only to be pursued when the traditional calling failed. Then again, the choice of possible alternatives was itself closely regulated; there was no free choice granted in this respect by law. A Brahmin could not till the land, nor could a carpenter become a teacher or a priest.

It is also noteworthy, in this connection, that more strictness was enjoined in respect of trading and labouring castes than in the case of the professional or sacerdotal communities. 'Thus Manu lays down that (the king) should carefully compel Vaisyas and Sudras to perform the work (prescribed) for them; for if the two swerved from their duties, they would throw this (whole) world into confusion.' The Sukraniti, too, states in the same strain: 'Every caste should practise the duties that have been mentioned as belonging to it and that have been practised by ancestors, and should otherwise be punished by kings'.¹

The enforcement of this rule may not have been very strict in actual practice; but the careful way in which the tradition of close correspondence between caste and occupation was built up, is clear indication of what the leaders of Hindu society had in mind. They believed in the hereditary transmissibility of character²; and thought it best to fix a man's occupation, as well as his status in life, by means of the family in which he had been born.

There is a tribe known as the Juangs in the hills of central Orissa. These people formerly lived by hunting, collecting wild roots and berries and cultivating the hill-side sporadically with nothing better than a digging stick. As the cultivating Hindus penetrated into their habitat, the Juangs were forced into the more restricted valleys and higher hills. But they were more numerous than the hills and jungles could support through their known methods of production. So there was fear of famine among them. Some retreated to more distant hills; while others changed their way of life and took to new occupations by means of which they could earn money under the altered circumstances. In portions of Pal Lahara, basket-making has become their chief occupation. In other portions

1. Majumdar, R. C., *Corporate Life in Ancient India*, p. 385.

2. *Manava Dharmasastra*, IX, 33-5; X, 9, also 59.

of the country, they have specialized in the collection of fuel wood from the jungles, which is sold to the farmers in the villages. And, it is interesting to observe that, as a rule, other castes avoid taking to the occupations of the 'lowly' Juangs for fear of losing social prestige. A monopoly is thus virtually assured to the Juangs after they become economically tagged on to the larger productive organization of the Hindus. In other words, society sets its seal of approval upon an economic adjustment arrived at by the Juangs under specific local circumstances. And, according to ancient custom, this occupation has practically been marked off as their hereditary monopoly.

The economic organization in India, in ancient times, was built up substantially round the needs of the small, self-contained local, regional unit, viz. the village. Each village or region, which might be formed of several villages, had its complement of farmers, servants, artisans, teachers and astrologers, and nobody poached upon the preserves of another. The village council or the king, on its behalf, saw to it that there was no infringement of rights, while, at the same time, no one suffered from unemployment. Relief was sought through the establishment of new village communities, for land had not yet become scarce in India.

Such an arrangement of agriculture and handicraft, had some points in common with the system of Feudalism in Europe; but it is also very necessary to remember the points of difference between the two. Under Feudalism, production is under the direction and authority of a chief who holds and rules by the sword. In the Indian case, the needs of the commune itself dictated production; while the farmers or artisans were not like serfs.

The economic organization of India was built up, more or less, in the above manner. Trading towns, as well as fairs or pilgrim centres focussed the production of more costly products, which commanded a larger market than the small village neighbourhood. In any case, we find that there was an enforcement and fixation of, more or less, haphazard adjustments arrived at under specific conditions, rather than a deliberate planning of occupations, and of villages and towns, to suit the needs of any central authority.

There was a second element in the Caste System to which attention should now be directed. Occupations were not merely fixed, but they were also graded into high and low. As the Brahminical peoples advanced and tribes gradually became absorbed into its social system,

the latter were generally assigned a lowlier station in life, and it became the effort of the dominant group to shift all the burden of labour upon them. In the time of the Vedas, Vaishyas formed the generality of people who traded or laboured either in the fields or the workshops. But later on, the Vaishyas became only the trading castes and all the rest were relegated a place in the Shudra *varna*, although in earlier times Shudras were those who merely served by their body, and were usually the remnants of the conquered tribes. Moreover, it was a distinctive feature of later times that very elaborate rules were devised to mark off one *jati* from another. This would not have been so if caste had merely been due to progressive differentiation of occupations. The rules became so elaborate because a substantial contribution to the total population came from those who had been subjugated, and the feeling of racial superiority continued among the comparatively fair-skinned conquerors.

We should however remember that, under primitive conditions of production, the differentiation of economic classes or the differential allocation of status, could never reach the degree possible under power production. Class differences did not consequently become very acute, because all shared in a common poverty resulting from productive inefficiency.

One eminent scholar once tried to account for class discrimination in a very original way. It is well-known that, in Hindu society, the highest place is accorded to the Brahmin *varna* and not the ruling or the trading classes. Premium is thus placed upon learning and character and not on wealth or warlike abilities. Even with regard to artisan castes, a higher place is given to those who conform more closely to the Brahminical ideas about ceremonial purity than to those who have retained customs foreign to Brahminical practices. In the opinion of the scholar referred to, this discrimination is designed to stimulate indirectly every caste into an adoption of a superior pattern of life. The hope was always held forth that if an individual led a pure life now, he would be born into a higher caste in the succeeding rebirth of his soul. In other words, the differentiation had a noble object in view instead of being an instrument of keeping down those who had come under Hinduism from lowlier cultures.

This may or may not have been an additional motive; but there is no gainsaying the fact that there was unjustifiable legal discrimination against the Shudras, as well as a large amount of exploitation with regard to the distribution of economic functions in society; and this

was undoubtedly the result of economic and political subordination. Caste brought food and security to all; but it also secured a steady supply of economic and cultural advantages for the dominant group. It thus prevented the full and unhampered growth of the personality of lowlier people who came under its sway.

Such an organization may function well enough under conditions of peace; but when the people of a country have to unite for purposes of common defence during war, the joints begin to creak and prove a potential danger to the safety of the community. This should not however blind us to the fact that caste had one great achievement to its credit. It brought a sense of sharing in a common enterprise among all the elements who formed the total system. It gave economic security in spite of obvious inequalities; and this security was guaranteed both by law and by custom. Shudras knew very well that they could not rise to a higher status in their present life; but as long as differences were not sky-high, and justice was meted out to all according to his established dues, caste also endured.

It is our belief that it was precisely this element of deliberateness born out of a recognition of the advantages of complimentary hereditary guilds, but reinforced by a feeling of racial superiority, which created the caste system in India, and whose absence in other parts of the world prevented its growth even when most of the other conditions for its formation were present in one form or another.

ATTITUDE TOWARDS COALESCING CULTURES

There is one more aspect of the caste system to which sufficient attention has not been drawn by social historians. Not that the facts are not known among philosophers or historians, but the fact has not been given its due weight in the understanding of the phenomenon of caste.

Russia today has had to face many of the problems confronting Indian economists and legislators in the past. Just as, in India, economic freedom was severely restricted, even so Russia has had to do away with the theory of *laissez faire* in economic affairs. Economic plans are initiated by the State, while the individual is granted the freedom to choose between one occupation and another; not how much or at what price he shall produce his goods or services. The authority for this lies elsewhere. Such over-all planning was evidently not possible in India in the past, but there was social control over economic occupations. The individual laboured under an additional restriction; he had to follow the calling of his fathers. From this

point of view, society was more authoritarian than it is today; but the totalitarianism was maintained more by the village commune than by the arm of the State, as it is in Russia today.

There was however another important matter in the organization of caste which has a parallel in the Soviet Union of today. The tribes or peoples who supplied the brick for the grand structure, were not all at the same level of culture, just as they were not also at the same level of economic productivity before incorporation. They often spoke different languages, ate different foods, performed various social rites, and subscribed to a wide range of religious beliefs. When such peoples came together in ancient India, what was going to be done about them? Two courses were open. One was to convert them completely as is done under Islam. When a Hindu becomes a Muhammedan in India, he discards his old name and takes on an Arabic one. He eats his food differently, dresses in a new manner; and, on the whole, leaves his past entirely behind. The other alternative is to preserve the previous culture in so far as it does not come into conflict with the new one. This has been done by the Russians in respect of the tribal people who have come under Soviet sway; and this is also what the Brahmins of old did with respect to the subjugated tribes whom they absorbed within the fold of the caste system.

In India, the culture of the conquerors became, more or less, fused with the culture of the conquered, for it was all a slow and long drawn-out process. And thus came into being that federation of cultures popularly known as Hinduism. According to Hindu belief, it is held that each culture is suited to the particular people who profess it. All that is necessary in regard to any set of beliefs is that the impediments in the way should be cleared so that the individual may rise to his fullest stature by outgrowing the need of his present emergencies.

This is quite different from the attitude towards cultures in Soviet Russia. There, it is science and the scientific way of life which occupy the highest position. Mussalmans are allowed to live according to their own faith, but they are taught that science is better than Mohammedanism. There is no forcible suppression of ancient beliefs, but the hope is always there that men will outgrow their religious error and reach scientific light as a result of the benefits of science which they experience in every-day life. The Russians do not respect the cultures of others as Indians do; for the latter hold that all cultures are

true if they are in conformity with the mental condition of the subject in question. Mahatma Gandhi expressed the same picturesquely thus: 'There are as many religions as there are individuals'.

Indians believe in the repeated rebirth of the soul; and so one can afford to allow a tribe to practise its own culture, after slight amendment, in the belief that with increasing purification, they would be born in a higher caste in the succeeding birth. The Communists, not believing in rebirth, and being eager to lead men from error to truth even within this life, which is all the time at one's disposal, have less patience with partial views of truth other than their own.

In this manner, although the Soviet Union and Indian civilization have denied freedom to the individual in economic matters, yet both have displayed a greater tolerance in respect of various types of human civilization. So long as different peoples have conformed to a common economic programme, they have both overlooked cultural inequalities to a more or less extent. The difference, in essence, has been this that Russia hopes that science and its experience will ultimately iron out all differences; while in India, the belief has been uniformly held that a federation of human cultures should be our supreme goal; for, at no point of time, shall the needs of all individuals tally completely with one another. No single view of life can also claim that it is in full possession of the whole truth. And as truth shall continue to be many-faced, man's culture should also reflect this many-sided nature of our perception of truth.

PRESERVING INDIVIDUAL LIBERTY

It is necessary, at this stage, to consider another aspect of human culture which perhaps holds a great lesson for us just when the whole world seems to be intoxicated by the success of authoritarianism, whether voluntary or forced.

The individual, as we have seen, had no economic freedom under caste, although he enjoyed a very large measure of cultural freedom. In most matters of life, all was set and ordered for him; he was like a cog in a big wheel which protected him when he surrendered his all to it. But men do sometimes desire freedom from the obligations imposed by law or custom. They may feel sick of the security guaranteed to them in a safe haven, and may develop the desire of freedom and adventure. It is normally difficult to fit in such a mood with an established framework of life, unless the fire is played off upon people residing in distant lands and for whom one need not profess very much of love. But such liberty has generally not been granted within an

established cultural framework. The Pharisees have always looked askance at outstanding individuals when the latter have tried to follow a new way of life; and then they have dealt with them as in the case of Socrates or Jesus Christ.

India has been, however, a land in which, in spite of regimentation in many matters, the freedom of the individual was held to be the supreme good. Regimentation was necessary for the sake of collective welfare; but, if it stood in the way of the progress of the individual, it lost all its value. The Hitopadesha says that the individual has to be sacrificed for the family, the family for the village, the village for the country, but the world itself has to be sacrificed for the sake of the soul. Definite arrangements were therefore made in India for releasing the individual from all forms of social obligation, if he so desired and actually stood in need of it. There was however one condition attaching to that freedom; it was given only to those who were prepared to pay a heavy price for it.

The price demanded from the individual was indeed heavy. He had to surrender all the benefits normally derived from collective life; he had to live upon the minimum of clothes, have no roof over his head, and to be constantly on the move. He was to become God's beggar. And in order to enter into the Sannyasa order, the individual had to perform the last rites of *sraddha* for his own soul; it could not be left for those who came after him. Only when he was prepared to put up with the starkness of such a life, was he assured a degree of prestige not enjoyed even by the sacerdotal caste. The Sannyasin was put beyond the normal operation of social laws. He was no longer obliged to maintain the sacred fire, which is the householder's first duty. He is no longer under the compulsion of the State's laws, unless, of course, if he comes under the purview of criminal restrictions.

Thus, although, Hindu society suppressed the individual under normal conditions, yet the restriction took on a, more or less, voluntary character, as he could escape from its rigours through the back-door of the institution of Sannyasa. We may imagine that this safety valve was responsible, to a certain extent, for the stabilization of the Hindu order of society. Those who suffered from a feeling of oppression, could escape and leave the organization itself to work as before. Higher castes could enter the Sannyasin's life without trouble. But, if a Kshatriya or a Shudra wanted to renounce the world, he had to take special permission of the king.³ Later on in Indian history, when

Vaishnavism and other reformatory sects became popular, the doors were opened wide to the Shudras as well as to women. And thus, in a way, this special arrangement for safeguarding the individual's freedom, acted like a compensation against the totalitarian character of the system of caste. Each helped to render the other more stable and permanent.

THE ORGANIZATION AT WORK

The production of wealth and the federation of cultures was thus organized on a novel basis in India. Such an organization works well under conditions of peace in the land. And as India remained free from any major invasion such as shook the Roman Empire to its foundation, for a comparatively long time, the social and economic arrangement worked in a fairly satisfactory manner and India became one of the richest countries in the ancient world through her industry and trade.

But the system had its inner weaknesses which began to show prominently with the passage of time. Some of these weakness were allowed for and an attempt made to preserve the structure in spite of their corroding influence.

We have already seen how agricultural villages had their complement of artisans of various kinds. When a village was established according to plan, it is quite possible that only the requisite number of carpenters, blacksmiths, barbers, or washermen were accommodated within its boundary. But as the population increased, the peasant families could perhaps settle their sons on the same ancestral land even if it led to extreme fragmentation of holdings; but an extra blacksmith or a carpenter could not be similarly habilitated, for a single artisan can serve many customers. If the amount of cultivated fields did not keep pace with the growth of population, some of these artisans were likely to be thrown out of employment.

It can easily be imagined that in ancient India, when land had not yet become scarce, the unemployed sons of farmers could have cleared a patch of forest and founded a new settlement in which there was room for some of the unemployed sons of blacksmiths or carpenters from his native village. But, even in early times, we find that some of these artisans founded industrial settlements exclusively peopled by themselves, and having taken to the production of specialised goods, catered to the needs of a larger region than that defined by the village boundary. The sale of such commodities, which were not needed by the farmer every day of the year, was

arranged through the religious fairs held at the end of the agricultural season, to which the farmers flocked for entertainment as well as adventure, when they had some money in their pockets.

India developed pilgrim centres quite early in her religious history. It is not unlikely that some of the centres of seasonal religious fair were so located that they also became foci of trade and developed eventually into permanent towns. People from all parts of India walked on foot or travelled by boat or bullock cart until they visited a large round of these pilgrim towns; and it became the custom at each of these centres to make purchases of specialized art products to be taken back home and preserved for generations to come. Such towns naturally attracted artisans and craftsmen of various kinds, and their wares thus slowly spread throughout the length and breadth of the land, instead of being merely confined to a small, geographical region.

One possible source of economic dislocation was thus tided over by freeing craftsmen from the limitations of the small, local market. But there was a more serious danger which had to be taken into account if the system had to be rendered sufficiently stable.

We have already seen how *jatis* were incorporated into the *Varna* system, their place in one or other *varna* being fixed according to the nature of their customary occupation. And because some of these *jatis* were drawn from among subjugated peoples, there was a tendency among the politically dominant social groups to assign to themselves as much of privileges as possible. The task of carrying on the labourious process of production was generally assigned to politically subservient groups. In course of time, this became crystalized, and the Shudras were not merely denied privileges of education, but serious legal discrimination was also drawn against them.

In the meanwhile, as industry expanded and trade flourished, wealth also began to accumulate. This was also a potential source of social disruption, and the leaders of society took a decisive step in order to counterbalance its evil influence. Brahmins were taught that renunciation of earthly comforts was a noble ideal, while Kshatriyas and Vaishyas were told that it was proper for a rich man or a man of power to employ himself in the service of his neighbours rather than to run after personal gratification alone. A poor Brahmin who was full of learning and of a high character was accorded more honour than a ruler or a trader under more affluent circumstances. A king or a merchant who spent his money in building temples, digging tanks or

in establishing wayside rest houses was honoured as a man destined to gain heaven as a reward for his beneficent activities.

It should be noted that this attempt to prevent the evils of increasing differentiation of wealth was made, not through legal arrangements, but by the promise of happiness in heaven and of fame in present life. Some may defend this by saying that the promise of future reward, even if it is fictitious, is a better incentive than the fear of punishment. But without entering into the merits or demerits of such a system, we may say that in ancient India a deliberate attempt was made to overcome the evils of wealth through voluntary effort. It is also not necessary for us to make a quantitative estimate of how far this arrangement succeeded in actual practice.

India's economic arrangements worked more or less smoothly for many centuries. There were famines in those times; but on the whole her arts and crafts flourished, her spices found an overseas market along with her textiles, and she drew a large amount of gold from countries beyond the seas. Some of this gold eventually found its way to temples and monasteries. The reputation of India's wealth and agricultural prosperity soon attracted the nomad hordes from Arabia, Afghanistan and Central Asia, from where they were also partially driven by the increasing dessication of the land. At first, these hordes came principally for plunder; but gradually they settled down to found kingdoms or empires. These nomads were used to a tough kind of life, while the people of India had, in the meanwhile, lost some of their qualities of strength through long eras of peace when a fixed programme of productive duties had prevailed for generation after generation.

Conservatism which had proved effective in industrial pursuits, unfortunately created a mentality which was disastrous in the event of war. The military castes who had been entrusted with the task of defence had become proud and self satisfied; they failed to take note of changes in the methods of warfare which were taking place outside the boundaries of India. So that, when the army of elephants and foot-soldiers had to meet the challenge of the mobile cavalry of Central Asia, they proved themselves utterly unequal to the task, even when they did not lack in personal valour and were superior in numbers.

We are told in the annals of Rajasthan that, during the war between the Rajputs and the Mughals, Rana Vikramajeet made a desperate attempt to bring all the feudal chiefs together and, at the

same time, to reorganize the army so that cavalry, armed with spears or swords, had to give place to an infantry trained in the use of firearms. But unfortunately, the effort was completely defeated, Vikramajeet lost his life and a weak man was placed in his stead upon the throne. At about the same time, we also observe, that the Mussalman Sultans of Gujerat changed their methods of warfare and even tried to extend their sway towards the east. Indeed, they had not become unreceptive like the feudal ruling clans of Rajasthan.

In spite of consequential disasters, the Hindus did eventually succeed in changing their methods of battle. And it is perhaps not a mere historical accident that the revolt against Mughal domination in the west and south was led by the Marathas, who came from all castes, particularly some of the more lowly ones, and in the north by the newly founded military brotherhood of the Sikhs, who denied all authority of caste.

In spite of slight shocks to the contrary and of the politically disturbed conditions of the country from the 11th to the 17th centuries, the system of caste endured without much vital change. In the towns, which housed the ruling Moslem families, some artisan castes, like stone masons, sometimes became converted to Islam if they happened to be employed in the erection of Moslem temples of worship. New arts and crafts of Persian origin were also introduced under the patronage of the courts, and these drew recruits from among the unemployed of various castes. Mercenary soldiers were also in large demand, and the adventurous spirits among the unemployed could find ready employment now; a privilege denied to them in early times when even the soldier's occupation followed a hereditary pattern. But in the villages, caste continued almost unbroken. Even when some artisan or peasant families were converted to Islam through force or due to some other reason, the converts continued to observe the hereditary character of their occupation, believed in the superiority or inferiority of various economic pursuits, and even continued to observe the old rules of endogamy. Their conversion to Islam was evidently not a sign of revolt against the economic organization of caste; it might have been against the inferiority imposed under labouring castes by the Brahmin superiors. But even that could not have been the principal reason, for many of the notions of superiority or otherwise of occupations continued among the converts as before.

But Islam did not fail to affect the better minds of India as

well. Its promise of social equality proved an attraction for many minds, even when it was not tinctured by the political advantages which came to a convert by identification with the ruling class. The result was that various religious sects came into being even within the fold of Hinduism which tried to incorporate the ideas of brotherhood which Islam preached. Islam, we must remember, did not, in actual practice, preach the brotherhood of all men but the equality of those who had come within its fold. And this was one reason why Hindu sects were founded, when an attraction was felt for Islam's brotherhood and not for the food, dress or culture in which it had come dressed with the ruling class in India.

All this happened during the middle and towards the end of Moslem domination in India. On their own side again, some of the leaders of Hindu society felt that the infiltration of Moslem influence would prove disastrous to the Hindu way of life in the end; some perhaps also held that the idea of human equality was itself a mirage; and in order to counteract further infiltration, which was taking place under the protection of political domination, a large section of Hindu society retired within its shell in the urgent desire for self defence. We must remember that the economic organization of caste still worked satisfactorily in the villages; so that the backbone of the caste system remained unbroken. The result of the defensive attitude of mind led to a series of puritanic reforms, when caste rules and observances were, at least formally, made more rigid. The system lost its elasticity, and the absorption of tribes or the formation of new castes, which was earlier set a seal upon by the King, became practically a thing of the past.

INFLUENCE OF BRITISH RULE

It was in this state of social affairs that the political power of India passed from the hands of Moslem rulers to a band of European traders. When the English first came into India, they were principally interested in trade; they mainly sold Indian manufactures in Europe. But later on they competed with the French in gaining political advantages amidst the disturbed conditions of the country. Lastly they became rent-farmers on behalf of the Mughal rulers in Bengal; and taking advantage of their political position, individual Englishmen not only engaged in trade on their own behalf so as to strangle native traders, but they also laid their hand upon accumulated wealth wherever they could. It is reported that the wealth so derived was substantially responsible for furnishing the capital behind the

industrial transformation of England.

When the Crown took over political charge of India from the hands of the East India Company, all authority was employed in order to help British trade and manufactures in place of the Indian interests. The investment of British capital was rendered safe in India, while England not only starved the Indian workmen by importing British manufactures under political protection, but it also expanded her overseas market outside India and made the latter country pay for the wars so that peace might be established in those market countries. By and by, India was converted from an industrial country to one economically colonial to the industrial position of England.

Let us examine how this economic change reacted upon the ancient social structure of India which had survived the long political domination of Moslem conquerors. The first effect of the spread of imported industrial goods was that various artisan and trading castes lost their hereditary occupation; the demand for their wares began to shrink seriously. The ideas of superiority or inferiority of occupations however continued as before, and this prevented a free movement of labour in all directions.

In the town of Bolpur in West Bengal there is a large number of unemployed or underemployed men of the Muchi or leather-working caste or of the Dom or Hadis, who traditionally work as farm labourers or manufacture basketery. With the growth of the town, there has grown a new demand for barbers, washermen and the like. The Muchis or Doms can earn more here than by means of their caste occupation; but they cannot do so freely as high caste people would not employ them for such services for fear of contamination.

The unemployed of various castes therefore flock to farm-labour, which seems to be the only occupation open to all without social objection. In course of the last fifty years, India has become more definitely ruralised than in the past.

A similar jostling for posts is also observable among the middle classes, who have grown up largely in the towns in order to cater to the needs of British trade and manufacture. All castes who were comparatively more prosperous than farm labourers, or who have had the advantage of education in the past, have furnished recruits for the middle classes. But unfortunately both in the case of the growing band of landless labourers, who have become one through impoverishment, as in that of the middle classes, who have arisen

out of comparative prosperity, the persistence of the old caste rules has so far prevented their fusion one new social unit.

THE PROSPECT

The process of social disorganization in India has not however reached its logical end. The old social rules about inter-dining and inter-marriage, and the notions of purity or otherwise of occupations is yet a living factor in towns and more so in the villages. They come in the way of economic reorganization to a certain extent, while they also prevent the fusion of men and women who have been forced into the acceptance of a common profession into one social group. Progressive movements like those led by the Brahmo Samaj have partially helped, while the passage of laws relating to inter-caste marriage have created the necessary legal conditions. But the mental attitude still remains conservative. Upper castes do not wish to surrender their position of social superiority even when it has become no more than a fiction. The case is worse among uneducated castes. They have been denied the privilege of education, and some of them still continue in their lowly hereditary calling, for no one from the upper caste would like to take up the sweeper's or the leather-worker's job even when threatened by severe unemployment. The loyalty of such castes to the caste system itself thus remains unbroken to a considerable extent; although some of them may be found groping their way to social and economic uplift through haphazard, blind and often extremely painful methods of readjustment.

Where caste is being broken, it is being done through the growth of a new kind of individualism which is associated with the extension of the capitalist structure. This hyper-individualisation may prove a necessary tool in order to break the old; but when the pendulum swings too far, it also blocks the way to the formation of a new and necessary kind of social re-integration.

It is quite evident today that there is no going back to the productive system of the past in India. The land has become too crowded, the needs of men have risen high, and we cannot go back to the old days when production was on the basis of muscle-power and when privileges were enjoyed by the few, and large masses of mankind were relegated to a lowly position in life and denied even the benefits of education, not to speak of social equality.

But, in spite of this, there were certain elements in the ancient social culture of India which are of permanent value in human civiliza-

tion. The subordination of the individual to collective control, which was an important feature of caste's economic organization, can, and has been restored on a different basis under the stress of war in nationalist states, and under the requirements of peace in socialist states like the U. S. S. R. That is not a novelty in the present world. But two things coming from ancient India still have a future for them. These are the democracy of cultures and their federation under one system, as in the case of Hinduism, and secondly the safety value which India built up in the form of *Sannyasa*, through which the individual could seek a way out when the authoritarian character of the social structure proved oppressive for him individually. Society and the state, as we have seen, freed him from obligations, and even gave him a respected place, if he surrendered the economic advantages accruing to him from social conformity.

In order to restore the good things of the past, it is not necessary that we should go back to the subnormal standard of production prevailing in those times. One should be able to discriminate between the grain and the chaff if he is not only to safeguard the ultimate supremacy of the human individual, but also the right of various views of truth to express themselves in a variety of cultural forms, while, at the same time, assuring food and physical comforts to the world's expanding millions.

THE PREHISTORIC CULTURE OF BENGAL

(III)

By H. C. Chakladar

IN two previous articles in this Journal¹ has been summarised what we know about Early Man and his culture in the Highlands of Bengal, and in that connection, in the rest of India and the adjacent countries, especially in the East. Since then our knowledge of South-East Asia has received further addition, specially as a result of the investigations carried on by the *Joint American Southeast-Asiatic Expedition for Early Man* conducted in the Irrawaddy Valley of Upper Burma and later, also in the island of Java. The highly valuable results of the work carried on by the Expedition are now available in several monographs by its members, H. de Terra and H. L. Movius Jr. Specially the Anthropological material summarized by Movius in his paper entitled "*Early Man and Pleistocene Stratigraphy in Southern and Eastern Asia*" (1949)², throws a welcome light on our subject and will be discussed by us here.

The main work of the Expedition was confined to Burma where it has made discoveries very important for the Pleistocene history of South-East Asia. In the Lower Pleistocene strata of the Irrawaddy Valley, fossils of mammalia identical with, or very similar to, those of the Indian Siwaliks had been discovered before. Now, at Anyathia in the upper Irrawaddy Valley, in the laterite gravel beds of the Middle Pleistocene, deposited during a major pluvial stage (correlated with the Second Glacial stage of the Himalayas), have been discovered very early human artifacts, classed as Phase 1 of Early Anyathian, and an advanced stage (Phase 2) of the same culture has been found at the succeeding inter-pluvial stage correlated with the Second Interglacial epoch of the north-western Himalayas. In the upper Pleistocene terraces formed at the third pluvial stage (correlated with the third Glacial stage of the Himalayas), have been found very rich deposits of human implements that have been classed as Early Anyathian, Phase 3. A late variety of the Anyathian culture may be recognized on terraces formed in the late upper Pleistocene; and the still later silt terraces of the post-Pleistocene Age show Neolithic and other implements (M.23-26). The Anyathian terraces of upper Burma thus present a complete picture of cultural development from the Early Palaeolithic to the Neolithic definitely graded in geological strata.

In Java which is the richest in human fossils in Asia, we have seen how remnants of human representatives meet us in the various ages. In the Lower Pleistocene beds formed during the First Glaciation stage of the Himalayas, was found the *Homo Modjokertensis*; in the Middle Pleistocene, in an age corresponding to the Second Glacial stage of the Himalayas, appears the *Pithecanthropus erectus*, and *Homo Soloensis* in upper Pleistocene strata. In China, in the Middle Pleistocene, as we have noted before, we meet with abundant remains of *Sinanthropus pekinensis*, associated with Lower Palaeolithic implements.³

In North-Western India, as we have seen, De Terra discovered in the boulder conglomerate of the period of the early Middle Pleistocene (late Second Glacial times) the earliest tools—large massive flakes with little retouch, and on terraces of the Second Interglacial stage of the Middle Pleistocene, he found abundant deposits of primitive implements of Abbevillian-Acheulian complex. In the same Interglacial epoch, and thus also in the Middle Pleistocene, he found implements of another distinct type in the same area, on terraces of the river Soan from which he names it the 'Soan Industry'. These pebble and flake tools are, at the first stage, like those in the boulder conglomerate, of a non-descript type, massive and crude, coarse flakes or flaked pebbles; this we may very well call the 'Proto-Soan' culture. Later, the tools become progressively finer, and assume the characteristic features of the Soan Culture proper, the flakes resembling the Clactonian and Levalloisian facies of European archaeology.⁴

In the Narbada Valley, carrying Middle Pleistocene mammal remains, were found Palaeolithic hand-axe cultures which are represented so plentifully at Kuliana in the Bengal highlands and in the east coast area in general. Correlating the secondary laterite beds in this latter area with similar beds in the Narbada Valley distinctly associated with Mid-Pleistocene mammalian fossils, it has been presumed that here also the laterite beds are of the Middle Pleistocene Age. For a sure determination of the age of the East Coast culture, however, we must wait till more certain palaeontological data are available. At Kuliana, we find a few crude flake tools also, but whether they can be correlated with those of the Soan Industry, is not yet clear.⁵

From the stratigraphic data at present available, it will thus be seen that it is in the Middle Pleistocene that Early Man seems to have made his first appearance in various regions spread over a wide area in South-East Asia extending from north China to the Indian Ocean and from North-Western India to the Sunda Shelf. Hooton, on the

basis of the discoveries made by the American Expedition, declares, "It seems probable that men at the Pithecanthropus-Sinanthropus stage of physical evolution extended down the eastern half of Asia from Peking to Java, and westward to Northern India, and that they had a culture which was identical or nearly so, throughout this vast area" (M. 74). Movius, who quotes this in his support, himself observes, "When the Pleistocene sequences of the various regions under consideration are considered as a climatologic, geologic, and palaeontologic whole, the extremely coherent and uniform pattern is indeed extraordinary", and this, "in spite of the fact that certain regional differences of a relatively minor nature exist." (M. 35).

A close examination of the typological characters of the various Palaeolithic cultures over this wide region, however, shows that the differences among them are considerable and that the uniformity of pattern is nowhere visible. Movius has no doubt succeeded in establishing a uniformity between the Palaeolithic cultures of Burma and Java, but these two have hardly anything in common with the main cultures of India, and far less so has the Choukoutinian Industry of China any relation with the Indian Stone Age.

In India, the main Palaeolithic industry is that of the hand-axe resembling the Abbevillian-Acheulian implements of Africa and Europe, and side by side with it, in many areas, are found flake tools of Clactonian-Levalloisian facies of Europe. Let us proceed to see how far these two main types of India are in evidence in Java, Burma, or China.

In Java, at the Patjitan locality, a very large series of implements have been found and they are mostly of the 'chopper-chopping-tool' variety as Movius calls it. "Many of the tools are large, massive and crudely worked; very few display an even, uniform retouch." (M. 39). Movius says that Prof. Breuil pointed out to him that "the true *coup-de-poing* of the Lower Palaeolithic Madrasian culture of Peninsular India is absent at Patjitan" (M. 44), and Movius himself observes with regard to the Patjitan tools, "Certainly there is no convincing evidence at present for including it in the same complex with the Madrasian of South India, or the Abbevillio-Acheulian of Europe" (M. 45). In addition to these heavy tools of the chopper category, there are flake implements too, "but these are not considered to indicate the presence of a Levallois technique" (M. 45). The only point of affinity that the Patjitan tools manifest, is that some of them are supposed to be "reminiscent of the Early Soan of Northern

India" (M. 45), that is, of the very crude primitive, Proto-Soan type; this is not to be wondered at, as Movius says of the Java tools, "Many of them are admittedly very crude" (M. 41), and 'very crude' tools in all parts of the World may easily be supposed to show some distant resemblance with one another.

The Anyathian culture of Burma throughout its long range from the Middle Pleistocene to the Recent epoch has nothing to show a closer affinity with Indian Palaeolithic cultures than the Patjitan. The Anyathian, as Movius himself points out, in all its phases is devoid of the hand-axe type of India (M. 46), and "as a whole is a chopper-chopping-tool-hand adze complex" and, adds Movius, "The most significant feature of the Early Anyathian is the complete absence of the bifacial implements of the hand-axe variety" (M. 52). "Flake implements are rare; most of them are massive and crude" (M. 49), and it is perhaps these that he supposes to possess some distant resemblance with the Proto-Soan of India, though he does not expressly say so.

With regard to the Choukoutinian implements which possess no agreement with either the pebble or the flake tools of India, Movius himself quotes the authority of Breuil: "Since the cultural material from Choukoutin cannot be directly compared with the well-known European types, Professor Breuil has stated that in his opinion it should be regarded as a separate development" (M. 61). Pei Wen-Chung who worked upon these tools, observes, "Judging by geological and palaeontological studies, the *Sinanthropus* industry in China corresponds *chronologically* to the Abbevillian and earliest Clactonian, but the contemporary implements are *quite divergent in type and technique*" (*Man in India*, XXII 150-51). Following Breuil and Pye, therefore, Movius cannot certainly be justified in equating the Choukoutinian with either the pebble or the flake industry of India, both of which resemble the African or European types very closely. Movius himself observes, "The essential point that emerges from a study of the Choukoutinian culture, is that hand-axes are completely absent, and that the pebble tools employed by *Sinanthropus* in connection with his food-gathering activities are in the chopper-chopping tool tradition" (M. 69).

There are some flake implements, but "the common types of flake tools include scrapers, points, and beak-shaped implements" (M. 66), nothing like the Early Soan flakes resembling the Clactonian-Levalloisian facies of European archaeology. At Locality 13 of

Choukoutin he finds a single implement, a small, heavily patinated chopping-tool of chert, and at the *Sinanthropus* locality (Locality 1), he finds some pebble tools, in which "the most prevalent types, which are usually large and heavy, include choppers and chopping-tools" (M. 66). These he equates with the Early Soan industry of the Punjab; "It is apparent," says he, "that the closest analogies for the Choukoutinian are with the Early Soan Of North-Western India" (M. 69), although he is aware that "a definite Levalloisian tendency occurs in the Soan Industry" (M. 73), and that this is entirely absent in China (M. 72).

In all these cases, in the Lower Palaeolithic culture complex of South-Eastern Asia, embracing Burma, Java and China, Movius has tried to conjure up, a fancied affiliation with the Soan industry of North-Western India, that is, with what we have called the Proto-Soan, which is an unclassified, non-descript type consisting of coarse and crude massive flakes or flaked pebbles, just such primitive, un-specialised implements as may be fashioned by proto-humans, in any part of the world, in their earliest efforts at tool-making. To assign them to a particular typology or special industry is bound to be incorrect. Thus the conclusion arrived at by earlier observers of the Palaeolithic industry of Asia, that the Early Stone Age culture of the Eastern extra-Indian region is quite distinct from the Indian type, still stands, in spite of the investigations of the U. S. Expedition to which, however, we are grateful for its discovery of the Stone-Age culture of Burma, although the final conclusions with regard to its affiliation are not acceptable.

1. *Man in India*, Vol. XXI, 1941, pp. 208—236 and Vol. XXII, 1942, pp. 140—162.

2. References to this paper are made in the body of the text by the letter f. followed by the number of the page.

3. *Man in India*, XXII, 151ff.

4. *Ibid.*, 140—143.

5. *Ibid.*, 143ff.

THE PREHISTORIC CULTURE OF BENGAL

(IV)

By H. C. Chakladar

CRUDE stone implements in considerable numbers have been found in the highlands of Bengal, showing this area to be an extension of the Palaeolithic zone of South India. Stone implements of a quite distinct and improved pattern, have been discovered in Bengal, mostly in the same highland regions, as also elsewhere, at sites that are more widely distributed, including the hills to the north and the east, and some have been collected even in the plains of Bengal. It is to be regretted, however, that all the celts thus found, were collected on the surface, and none of them in any archaeologically or geologically recognisable stratum, so that in studying these artifacts as evidences of the culture of the early residents of this country, we have no record of well-established stratigraphy to guide us. For working out their affiliation to other groups of similar tools in India or outside, we have to depend only on typology.

These tools are mostly polished and symmetrical, and even the raw material out of which they were manufactured, show a great variety in quality and colours. They have been called *neoliths* in view of the new style of their manufacture. "Though of extreme rarity in the flatter parts of Bengal", as Brown observes, "they are to be found in the highlands of this province and in Bihar" ². Not very far from the palaeolithic site at Kuliana in the Mayurbhanj State, there is a Neolithic site at Baidipur ³ from where a number of celts have been collected, but the site still awaits systematic excavation and promises a rich store of Neolithic artifacts ⁴. An old Neolithic settlement discovered near Ranchi, yielded a large number of tools in 1887, and more recently a site has been discovered in the valley of the river Sanjai in the Singhbhum district, near Chakradharpur. ⁶ In the same district in the Bengal highlands, in the area called Dhalbhum, E. A. Murray found about the Ruangarh ruins excavated by him, an immense number of polished stone celts, chert flakes and cores, and besides, innumerable potsherds and carnelian and other beads. ⁷ Bodding collected in the Santal Parganas, and especially in the Dumka Subdivision, a large number of celts, axes, hammers, grindstones, arrowheads, saws, maceheads etc., and besides, chips and flakes of chert in many places. ⁸ S.C. Roy

collected over a hundred celts and other artifacts mainly from the Ranchi district, and some from Manbhum and Santal Parganas, including axe-heads, chisels, adzès, hammer-heads, pounding and grinding stones, and a quantity of beads of quartz crystals, besides other stones.⁹

In the highlands to the north of Bengal, in parts of the Darjeeling district, and most frequently in the Kalimpong subdivision, Walsh¹⁰ reports that numerous celts which his illustrations show, are polished Neolithic axe-heads, are frequently found, and specially on the slopes that run down to the Teesta on its western bank. He further states that the native hills-people told him of the existence, in the district, of flint implements, including arrow or lance-heads, knife-blades etc., though it is to be regretted that neither he, nor any one else, has yet made any collection to them.

To the east of Bengal, a large series of Neolithic implements have been found in the district of Tezpur, and a few have been picked up in Cachar, Dibrugarh, Sibsagar, Shillong, the Naga Hills, and as far as the Mishmi hills to the north-east of Sadiya.¹¹

In the plains of Bengal, in districts adjacent to the southern highlands, a polished Neolithic celt found at Raniganj, is referred to by Logan¹² and recently some Neolithic celts have been discovered in the Midnapur district, and some Neolithic tools and microliths in the district of Bankura.¹³ A highly interesting collection of polished Neolithic celts along with a number of pigmy flakes and beads of various colours, of chert, agate and chalcedony have been discovered in flood deposits of the Damodar, in the village of Durgapur in the Burdwan district.¹⁴

Neolithic artifacts have thus been found in fairly large numbers on all the land-frontiers of Bengal and a few have been picked up in the plains too ; these facts more than justify the conclusion that Neolithic culture had spread all over the country including the plains in between the outlying highlands.

A BURMAH-MALAYA TYPE OF CELT IN BENGAL HIGHLANDS

The above conclusion receives positive and un-questionable support from the occurrence of a Neolithic celt of a peculiar shape on the highlands both to the east as well as the west of the plains of Bengal, and not very far beyond its frontiers in the latter direction. This is the "shouldered celt", or "spade celt", as it is called, from the fact that like a spade these celts "commence with a well marked stock or handle and then suddenly splay out into a broad, semi-circular cut-

ting edge",¹⁵ and celts of this description have been found both in Assam, as well as, Chhota Nagpur. A fairly large number of them had been found by Theobald and others in Burmah (there are thirty of them shown under Burmah in Brown's Catalogue of the Indian Museum),¹⁶ and square shouldered adzes are said to abound in the Irrawaddy valley;¹⁷ they are reported to be frequent in the Malay Peninsula, Indo-China,¹⁸ the Yunnan,¹⁹ and also in Polynesia,²⁰ so that Theobald,²¹ in 1873, had pointed out this peculiarity as a marked point of difference between Indian and Burmah-Malaya celts, and later discoveries also support this view. In 1857, however, Ball presented at a meeting of the Asiatic Society, Bengal, two shouldered celts of the Neolithic Age obtained from the Dhalbhum area of Chhota Nagpur, and Ball assured the Society that the material, dark green quartzite and trap—of which they were made, were available in the Singbhum district, proving thereby that there was nothing to doubt that they were of local manufacture. Later, Bodding²³ reported to have seen four shoulder-headed celts of chert and sandstone in the Santal Parganas resembling the two found by Ball. Among the celts from Baidyapur (Mayurbhanj) in the Indian Museum, Chanda²⁴ reports one being "a slightly shouldered celt", and a few more have since been collected by Mr. Paramananda Acharya, of Mayurbhanj, and are now in the Museum of the State. Hutton²⁵ has pointed out a roughly shouldered celt from Rajgir, Bihar. To the east of Bengal, H. C. Das-Gupta²⁶ describes two shouldered celts from Assam, one from Tezpur, and the other from Koanarpara in Cachar, and from an examination of the rocks of which they were made, he observes that they were evidently of local manufacture. Hutton²⁷ describes a celt found in the south of the Naga Hills district which was very elaborately worked and had carefully squared shoulders, and another also found in the Naga Hills and fashioned out of silicified wood.²⁸ He has also illustrations of five more or less shouldered celts found in Assam in the Census Report of India for 1931.²⁹

The distribution of the shouldered celts thus shows that they are most numerous from Polynesia to Burmah; but their counterparts occur only sporadically in the highlands of Bengal, including the Santal Parganas and Chhota Nagpur. Outside this region, in the south, only one has been reported by Hutton from somewhere in Madras,³⁰ and from the west, a single small spade celt of polished limestone in the Indian Museum, is described as having been obtained from Tembavati Nagri,³¹ which is situated about eleven miles north of Chitor

in Rajputana.³² They are found in a slightly larger number in Assam ; their number, however, may have been larger in earlier times than the few actually found would indicate, inasmuch as Peal³³ reports that the iron hoes he found in use in Naga villages in weeding the hill paddy were based on their stone prototypes, and were simply the shoulder-headed celt made in iron, and the same remark also applies to the hoes at present in use all over Chhota Nagpur. Similar shouldered iron hoes are also found among the Khasis and they bespeak the presence in former times of their stone prototypes in the Khasi region. Das-Gupta³⁴ observes on the basis of the two celts described by him, "The occurrence of these two implements of the Burmese type, in areas through which the wave of Khasia immigration very likely passed, before the race found its present hilly home, is of extreme interest, and is quite in conformity with the view so long held regarding a relationship between the Khasis of Assam and some of the older tribes of Burmah, which has been based chiefly on linguistic grounds." Hutton³⁵ also observes that the shouldered "type forms an interesting link between the Mon-Khmer implements of the Malaya Peninsula and of Chhota Nagpur", and the Naga "iron hoes are doubtless inherited from the Mon-Khmer", and the stone hoe found in the Naga region "suggests that some branch of the Mon-Khmer race inhabited or passed through the Naga Hills before it had learnt the use of iron." The linguistic affinities between the Talaiing and other peoples in Burmah and the Munda group of Chhota Nagpur has been long recognized, and as a result of the investigations of Pater Schmidt, it is now widely believed that the primitive people of the Santal Parganas, the Munda group of Chhota Nagpur, the Khasis, and the Mon and Palang-Wa groups of Burmah speak dialects of the same Austro-Asiatic sub-family, and that their speech betrays affinities with languages spoken in Indonesia and even Polynesia to make up the Austric Family of languages.³⁶ Hevesy³⁷ has, however, thrown not very unreasonable doubt upon this affiliation which calls for further careful research. However, the linguistic data would not affect our conclusion derived from the distribution of the shouldered celt that this particular implement had migrated from South-Eastern Asia, through Burmah and Assam to the plateau of Chhota Nagpur,³⁸ and the people carrying this culture must have passed through the intervening plains of Bengal, thus contributing to its population and its culture.

• It must be borne in mind, however, that the shouldered celts make up only an insignificant fraction of the large total of Neolithic

artifacts collected about Bengal, and that the culture represented by it is only one of the minor contributions to the culture of our area, the main affiliation of which is with the west extending up to the Atlantic as will be shown hereafter. We have dwelt upon the shouldered celt at some length as it is likely to be lost sight of in a study of the origin and development of the civilization of Bengal.

E. C. Worman, in his paper on "The Neolithic Problem in the Pre-history of India", (Journal of the Washington Academy of Science, Vol. 39, No. 6, 1949) has, from a comparison of Indian and Far-Eastern celt-types, hazarded the conclusion that Indian smoothed stone celts of the Neolithic type appear to have been derived from the eastward, and that the eastern half of India belongs to a fairly large South and East Asiatic area, including India, Burmah, South-East Asia, and Southern China, throughout which the evolution of Pleistocene pre-historic culture he thinks to have been more or less similar. (p. 199). We have seen, while discussing the paper of H. L. Movius on "Early Man and Pleistocene Stratigraphy in Southern and Eastern Asia", that his theory of a Southeast-Asiatic origin is certainly not correct with regard to the tools of the Palaeolithic Age in the eastern or any other part of India (*Man in India*, 1951). Nor, we think, has Worman succeeded in proving, with any degree of certainty, the Southeast-Asiatic origin of Indian celts of the Neolithic type, with the single exception of the 'Shouldered Celt' which has long been known to have been derived from the East. Worman's conclusion that the earliest Neolithic like stone tools probably appeared in India not earlier than 3500 or 2500 B. C., is opposed, as we shall see below, to the best opinion on the matter. His classification of the celt-types, however, has been done with very great care, and will certainly be of very great help to future workers in the same field.

Microliths or Pygmy Flints

The small flakes of stone found at Durgapur in the Burdwan district of Bengal along with polished celts also open up the question of the migration of culture to Bengal, apart from that of the great culture complex of the Neolithic Age that we shall presently take up. These microliths or pygmy flints, as they are called, may be seen from the Durgapur collection to have been chipped out of hard rocks of various beautiful colours, such as agate, chert, jasper, chalcedony, flint etc., and to be of various geometric patterns—triangular, crescent, rhomboidal or trapezoid, while some have one end more or less elongated to a fine point. A large number of them was collect-

ed in the area about Chakradharpur in the Singbhum district, and they have been found in other areas of Chhota Nagpur also.³⁹ Mr. A. C. Carlleyle was the first in India to draw attention to these minute flints of which he found great hoards "in caves, rock hollows and under rock shelters", on the northern scarp of the Vindhya Hills to the south of the Mirzapur and Allahabad districts, in Baghelkhand and Rewa, and also in Bundelkhand and Rajputana. Carlleyle "did not find a single bit of metal of any kind", "nor even a single ground or polished implement", but on excavating pre-historic grave-mounds in the same area he discovered whole skeletons with grave goods of "rude earthenware vessels and fragments of pottery in the same mounds along with small stone implements and numerous flakes."⁴⁰

There has been much controversy about the use to which these tiny bits of stone were put. One explanation is, "These tiny tools could seldom have been used alone; they must rather have been mounted together in wooden or bone shafts as members of composite tools",⁴¹ and bone shafts grooved longitudinally and fitted with microliths have actually been found in Denmark.⁴² Prof. Marett, however, observes. "These geometrically shaped flints, angular, curved, or crescentic, having a distribution extending from western Europe to Egypt and even India, may have had more uses than one, and only gratuitous dogmatism would lay it down for certain that they were stuck like teeth into wooden clubs, or that they served instead of fish-hooks, or that they provided a means of extracting edible snails from the shells."⁴³

The wide distribution of this peculiar industry in the haunts of Stone Age people extending from Bengal to Palestine and Egypt, even Western Europe, upto England, is perhaps only partly due to migration; as Childe observes: "Cultures characterised above all by the manufacture of geometric microliths are scattered about from the Atlantic coasts of Morocco to the Vindhya Hills in India and from Kenya (or even South Africa) to northern Europe. The similarities in the flint work alone are so great as to suggest a good deal of migration such as might be expected as a result of the incipient desiccation. But migrations cannot be collectively traced with the flint work alone, and allowance must be made for possible parallelism in evolution in several areas."⁴⁴ The distribution of the microliths does not appear to have been co-extensive with the Neolithic polished tools, but, as in Flanders and Denmark, in the Singbhum district and Durgapur, they have been found in the same area, though the records are

not quite clear as to whether they were found together, and we are not yet in a position definitely to say whether the microliths and Neoliths of Durgapur were manufactured by the same people. One thing, however, is noticeable, viz. that the polished celts found here are quite small, and Carlleyle also reports that he found small stone implements with flints in some graves.⁴⁵

It seems that certain sections, perhaps distinct tribes, in the age of the Neolithic culture complex, specialised in the manufacture and handling of small flakes, and there is hardly any evidence to support the theory of Vincent A. Smith that "the delicate little implements of the pygmy class were the handiwork of the women",⁴⁶ or that "their occurrence in association with neolithic implements at certain stations finds an explanation in the theory that they were the work of palaeolithic survivors reduced to submission and dependence by more advanced races which had attained to the neolithic stage of incipient civilization."⁴⁷

Carlleyle found in some of the caves pieces of *geru* or red hematite along with the small flints, and "on the uneven sides or walls and roofs on many of the caves or rock-shelters there were rock-paintings, apparently of various ages, though all evidently of great age, done in the red colour called *geru*⁴⁸." Some paintings also done in the same colour have been found drawn on the face of the rock about Singanpur in the Central Provinces, and they have been considered by some to be of the pre-historic times.⁴⁹ But Gordon who visited them recently has, declared them to be of a very late date.⁵⁰

The Importance of Neolithic Culture : Enormous Advance

The epoch designated Neolithic by archaeologists saw the evolution of some of the fundamental elements of our civilization, and for reconstructing the culture-history of our country it is of the greatest importance to take stock of the culture-contents of that distant age, and to investigate what share each of the constituents had in the shaping of our social life. For this purpose we have the positive testimony of the artifacts referred to above. These relics of active human life discovered about Bengal signalize an immense progress in the culture of our area achieved since the days of the hunters and fishers on the Burhabalanga. They include celts and flakes of stone of various shapes and colours, arrow-heads, ringstones, discs, stones for grinding, polishing, hammering, mealing, besides lumps of red earthy hematite and pieces of quartz or rock crystal. There was, moreover, a profusion of

"beads in all stages of manufacture--bored and unbored--of chalcedony, carnelian, onyx, sardonyse, rock crystal etc., some quite artistic both in shape and ornamentation, and thus indicating that their manufacture had attained to a much higher grade of civilization." The raw-material was generally trap, schist, slate or sandstone, and the flakes of chert, agate or flint; a probable increase in population since the Palaeolithic times, and the rarity of suitable flints and pebbles on the surface, led Neolithic men to mine for them, and it appears, as in the case of the flints and microliths, and especially of the beads at Durgapur, that these men had to look for their materials far and away from home.

Axes and Chisels, Nicely Ground Beautifully Polished, and Efficiently Hafted

The celts which served various purposes, demonstrate that the gradually progressive capacity born of long practice for manipulating raw materials, had made the simple and clumsy working processes of earlier times, give place to gradually refining methods; besides the old method of chipping by percussion which still continued, we find a new method of marginal chipping by pressure, which though slower, yet gave implements that were both better looking and more efficient. The edges of the celts which were used as axes, adzes, or chisels, were sometimes straight, but often crescent-shaped, and sharpness was imparted to them by grinding, for which purpose, the pieces of hornblende, schist or reddish flinty jasper found at the sites were admirably suited.

In the Bengal highlands the celt industry is found in all the stages of its evolution from the very beginning with roughly chipped tools without any attempt at grinding or polish, to finished axes, adzes, or chisels beautiful in shape and form and highly polished all over. The art of turning out a completely polished celt was a laborious and difficult process, and long ages must have been spent in its elaboration. In the area near Chakradharpur where Anderson had made a collection earlier, Sen has recently discovered on an ancient land surface on the Sanjai, fifty feet above the present bed of the river, what he properly calls a "celt factory", a veritable workshop where celts at all stages of manufacture including a large number of rejects lie scattered, and they are evidently *in situ*, as they are fresh and unrolled, with edges still fine and sharp; it is just such a factory, though on a smaller scale, as the one discovered on the Kapgallu or "Peacock's Hill", near Bellary by Foote who was fortunate in finding a series of polishing grooves worn deep into the rock surface by the grinding of celts to a sharp edge.⁵³

A preliminary examination of the celts from the factory on the Sanjai, has enabled Sen to classify them into seven groups illustrating almost all the possible stages of celt manufacture, the celts at all the stages being complete and really effective weapons ready for use. At the base we have the earliest type of a simply chipped celt hardly different from the Palaeolithic tools, without any attempt at grinding or polishing; but an advance is indicated by 'pecking' that is, breaking down the angles of the different chippings. The next stage is marked by tools that are generally chipped on the margin and the sides, but show a slight typological improvement by having the cutting edge ground; some celts that are ground all over without chipping or polish, show the acquisition of an improvement in grinding technique. Next, we find the Sanjai artificers introducing the new technique of imparting a polish to the ground surface, beginning with the cutting edge only, and gradually extending it to the remaining surface, the area of ground surface left without polish varying within a wide range. Next, the Sanjai artisans were trying a combination of the three processes of chipping, grinding, and polishing, and we find a great deal of experimentation in the extent of the surface given to each process, perhaps to find out the best compromise between beauty and utility. Last of all, we have a rather small number of tools in which the celt-maker's art reaches its perfection by the production of a tool polished all over with a bright glossy surface and at the same time with a gracefully symmetrical form and shape. Foote has divided the celts at Bellary into four groups, and Sen has again divided the celts into further groups according to the form of the cutting edge, the butt, sides, margins etc.

S. C. Roy had noticed some of these forms among the celts of his own collection from the highland area: while the majority of them were polished over the whole surface, some being 'beautifully designed', 'highly polished, of excellent finish, and perfectly symmetrical'; a smaller number were chipped, and ground only at the edge, but a few of these again were "splendid specimens of stone celt almost wholly chipped, the edge alone having been ground to a high polish"; a still fewer were only chipped and not ground at all. In the Santal Parganas also, Bodding reports that some of the celts "have a beautiful form and polish, and others have only the edge polished".⁵⁴ It is quite possible that among most Neolithic peoples, the older unpolished type of implements simply chipped into form and hence comparatively easy to produce, continued to be manufactured and used even after the art of polishing had been acquired.

The celts generally taper to a pointed butt, very often truncated, showing that they must have been hafted, and thus rendered more effective in use, but though Sen has noticed at least nine different forms of the pole on butt-end,⁵⁵ there are none with drilled sockets for hafting in the butt as is found in some European tools. The hafts themselves, being no doubt of perishable material, generally wood or bamboo in our area, have been destroyed. The celts might often have been left without handles and used like wedges, being driven by blows on the butt, for which the celts with truncated butts would answer very well, and many of them do bear marks of such hammer strokes. The small celts which have been found at Durgapur could also have been similarly used, with or without hafts, and similar small tools have been obtained from Chhota Nagpur and Mayurbhanj. We thus see that apart from utility, it was sought to give a better look in general to the tools. The sense of beauty thus appears to have developed in the primitive mind in our region, as is also apparent from the selection by the Neolithic craftsmen of stones of various colours that were calculated to appeal to the eye; in our area this is specially seen in the flakes, which are white, grey, black, or various shades of yellow brown or red. Necessarily there are cores of chert or jasper of various colours from which three to twelve or more flakes have been chipped.⁵⁶ The flakes were used for knives, scrapers, arrow-heads, saws, drills, lancets etc.

Hammer-Stones, Ring-Stones, Discs

Hammer-stones have been found, sometimes plain, and sometimes with grooves round them, showing that the hammer was attached by a ligature to a wooden or withy handle. Though grooved hammers and axes are more numerous in America, and are considered to be rather rare in Eastern Asia, yet a pretty large number have been reported from Assam and other parts of India.⁵⁷ A hammerstone of light greenish granite was found by Walsh in the Kalimpong subdivision of the Darjeeling district.⁵⁸ Some ring-stones of mica schist, sand-stone, diorite etc. also occurred among these tools. Wood-Mason⁵⁹ describes a ring-stone of actinolite schist which "has a parallel-sided shaft-hole in the middle, and in the margin of the hole on one side a broad notch has been cut cleanly and obliquely across the fissile planes of the stone and may possibly have been intended to receive a pin securing it firmly to a wooden shaft". The ring-stones are believed to have been used as mace-heads used in fighting with enemies or game at close quarters, or they might have been flung at them from a distance.

Anderson ⁶⁰ suggests that they might "have been used by the women for weighting digging sticks". Some thick discs of quartz or gneiss of a diameter of two or three inches, with thick flat edges, have been found with these implements, but their use is not properly understood. They might have been used as slings. Cockburn found similar discal implements of chert in the Mirzapur district and he thinks them of rather palaeolithic affinity⁶¹.

Red Ocher : wide use in Early Times.

The lumps of red hematite discovered with the Neolithic tools at the Ranchi site appear most of them to have been rubbed down to a smooth surface or scraped for the production of red pigment which they evidently used in painting their bodies with.⁶² This practice of painting the body with red ochre was of very wide distribution in Neolithic times. "There can be little doubt of this red pigment having been in use for what was considered a personal decoration by the Neolithic occupants of Great Britain."⁶³ "The practice of covering the body with red ochre itself goes back to the Palaeolithic epoch on the Atlantic coast, and in Neolithic times was widely distributed from Sicily and Italy through the Danube valley and Switzerland to the middle Rhine and north Germany. It is then probably to be regarded as a common heritage from the Old Stone Age. But nowhere was the custom so consistently observed nor the ochre deposit so thick as in South Russia."⁶⁴ Childe here refers to the covering of a thick layer of red ochre found on corpses lying buried under mounds in South Russia called Kurgans and supposed to represent monuments of the Indo-Germanic people in the Neolithic Age. We may note here in passing that red ochre has been used in India in dyeing the garments⁶⁵ of ascetics and religious men since the time of the Muni of the Rigveda who went about preaching the worship of the gods clad in brown and rather dirty-looking robes ; at the present day , "almost all over India the use of red ochre is regarded as fortunate." The use of vermilion on the forehead and up the parting of hair on the head by women who have their husbands living, and besides, the figure of a mannikin drawn with the same red material on walls and pitchers (*mangalaghata*) etc., as a symbol of auspicious significance, may be regarded as survivals of what we find in the ancient Neolithic culture of the Bengal highlands, and of the earliest traditions of the Indo-European people as well.

Bow and Arrow

Wood-Mason ⁶⁷ describes many arrow-heads found at the Ranchi site, of chalcedony, black chert, white quartz or rock crystal. He notes

that "all the arrows (except two) are flakes and they present two faces, a flat, or inner, or core face, with a more or less evident bulb of percussion, and a flaked outer face. "Many of them had been artificially worked either near the butt or at the sides into notches for the reception of cords for securing them to their shaft", and some of them "have a rounded indentation half-way down its length from the butt for the same purpose". That they were intended to be used as arrow-heads, cannot therefore, be doubted. The bows and the darts, of perishable wood or bamboo have, of course, gone, like the strings of withe or gut. It may be noted in passing, that though the bow and the arrow appear to have been in use in many parts of the world, yet the Australians have not been able to devise this weapon up till now; they "lack it entirely, so that it looks as if the invention belonged to a rather high level of Stone Age Culture."⁶⁸ The arrow-heads which have been found at many of our sites no doubt marks a great advance in the methods of procuring food. They demonstrate that the bow, pre-eminent among primitive weapons of hunting, had come into use in our area, and "made possible", as Kroeber points out, "long range fighting, the free pursuit of large game, and the capture of many animals and birds which previously it must have been difficult to take."⁶⁹

Pottery and Agriculture

Potsherds indicating pottery of two distinct types, one pretty thick and the other comparatively thin, have been discovered with the Neolithic implements at Baidipur in Mayurbhanj, and at other stations also. Potsherds collected with the tools, in the valley of the Sanjai show on examination that in the preparation of the paste for manufacturing pots, husks of grain (paddy) had been used with the clay for giving it greater binding strength.⁷⁰ This proves that not only were pottery made, but grains were grown for food by the people of the Neolith Age about Bengal; this is also established by the mealing-stones with rectangular or circular tops described by Coggin Brown.⁷¹ These testify that the aberrant and uncertain food-supply of the palaeolithic hunters and fishers was being supplemented by the conscious production of food, that some process of agriculture had been devised or acquired by these people, and the growing of corn necessarily implies the demand for containing vessels, and also pots for cooking the food. Pottery was an invention of the greatest service to men of the polished stone age. "Whole lines of foods could now be utilized that had formerly been passed by, soups, stews, porridges, Plants whose seeds or parts were

before inedible, or almost so, were added to the diet as soon as they could be boiled."72 "Once invented," says Fleure, "pottery gave new possibilities of storage, of mixture, of food preparation, of softening grain for the baby as well as of fermenting it to get exaltation for the adult into realms of magic and passion."73

Pottery, agriculture, and the archer's craft, are some of the clust of traits that mark this age of great inventions and discoveries when human civilization appears to have gone up by a sudden spurt. Pottery and the bow have been found in many areas to have developed in the Early Neolithic, and agriculture in the full Neolithic.⁷⁴ Other fundamental elements of man's culture are also found associated in this Neolithic complex which seems to have a quite wide range. "It is now possible to sum up and suggest," says Fleure, "that human societies towards or after the effective end of the great Ice Age, probably somewhere in south-western Asia, developed a complex of inventions including cultivation, stone-grinding, the wedge and lever, improved wood-work, and pottery. The beginnings of the domestication of animals followed these inventions very quickly; a palisade and stakes and cords would hold a captured calf till it was wanted for food, and might bring the mother cow under control and lead to her becoming a source of milk for the children. The domestication of cow, sheep, ass and dog, at least, occurred fairly early along with the great inventions mentioned above, and it is possible that other steps forward were also made, one being the invention of the wheel."⁷⁵

Our Neolithic sites have not yet been systematically surveyed or studied scientifically, so that our knowledge of the Neolithic culture of Eastern India is very imperfect; we have nothing to show as yet whether these Neolithic people about Bengal possessed any domestic animals, or built any houses for dwelling, as we find in other areas at the same stage of culture.

Metallurgy Highlands

With regard to the possession of a knowledge of metallurgy, by the people of the Bengal highlands, we have now definite and positive evidence. Mr. E. A. Murray, in a recent contribution of great value,⁷⁶ brought to light a large number of pre-historic workings in copper and gold mines in the Dhalbhum area of Chhota Nagpur where Neolithic implements have been found for a long time. In this area bounded on the east by the Midnapur district of Bengal, and on the south by the area of the Stone Age sites of Mayurbhanj of which it is a contin-

uation, Mr. Murray has discovered that "remains of ancient prehistoric copper workers are exceedingly numerous; countless workings, dumps and slag heaps testifying to their industry" (p. 84) and many hundreds of stone implements useful for mining, crushing, anvil and grinding stones, ring stones, stone hammers and roughly polished chisels and broken bouchers in any number lie scattered in the neighbourhood of the mines and sometimes inside their shafts. Hornstone and quartzite cores and flakes were found in profusion in some of the villages in this area, and also Neolithic celts. Stone implements without polish which, it is known, were used along with polished tools, in the Neolithic Age, have been found associated with copper workings in large numbers. Moreover, "the wreckage of trap implements in the dump leaves, no doubt about the extraction of copper having been started with their aid" (p. 82). Besides, the existence of plenty of unearthened iron ore close at hand prove definitely that this metal had not as yet come in use (p. 82). Sometimes the shafts were carried down to a considerable depth specially in the gold workings which are numerous in the south west portion of this area. In addition to the copper workings the ancients have worked go to both alluvial and quarry (p. 79) "The greatest depth so far known to have been reached by the ancients here is ninety-seven feet on a pipe coming down from the top of Porojarna Hill, and in the bottom of this were found a stone hammer and broken chisel (p. 83). Some of the areas possess pottery of superior quality and workmanship in the lower strata, as near Rúangarh, where, Murray points out, "the higher layers contained only red clay pottery similar to that used in modern times, but as the cut got deeper, this gave place to yellow, and often to dark and nearly black pieces of superior manufacture and finally to elaborately ornamented fragments. The superior workmanship of the earlier workers was clearly established" (p. 95).

Celts made of almost pure copper and in exact imitation of polished stone axe-heads and chisels etc., have been discovered in considerable numbers in our area. A highly finished "flat celt or battle-axe of copper with a rounded cutting edge ending in two well-marked shoulders continued down from the butt," was found not far from the village of Tamajuri (lit, 'the copper-trench') in the Midnapur district of Bengal.⁷⁷ Several copper axes were found in the Pachamba Sub-Division of the Hazaribagh district,⁷⁸ and "a great cache of copper implements were found in the neighbourhood of the Baragunda copper mine by Dr. Saise"⁷⁹ in the same district about 1887. In recent

years a large number of copper celts have been discovered in "Greater Bengal", as Brown puts it,⁸⁰ and deposited in the Museum at Patna and in Mayurbhanj. A celt found in Palamau district, "a fine specimen of early copper age workmanship",⁸¹ and some of a find of twenty-one copper axes from the Ranchi district "of practically identical design and workmanship" are described by Brown;⁸² in the Ranchi district, two more axe-heads were found by Roy.⁸³ Dr. Campbell reported twenty-seven copper axe-heads of various sizes found in the Manbhum district between the Pareshnath Hills and the Barakar river;⁸⁴ ten celts brought to light in Mayurbhanj were considered to have been used as battle-axes,⁸⁵ but the discovery of an inscribed copper axe-head from Balasore⁸⁶ has made it probable that those celts were intended for inscription, and therefore of a comparatively late date. In the Palamau district the Rev. Father Ernes⁸⁷ found six copper axe-heads and seventeen bar celts which, though of peculiar shape, are declared by Brown as "authentic copper age pieces" resembling some celts in the Indian Museum from the famous Gungeria hoard of the Central Provinces which Sir John Evans declared as "the most important discovery of instruments of copper yet registered in the Old World."⁸⁸ Dr. Campbell suggested that the Palamau bar celts were "almost identical in shape with the iron ploughshares now in use in the north of the Manbhum district", and Gait thought that they were very likely "used as pickaxes or as ploughshares".⁸⁹ "Like all other pre-historic metal implements hitherto discovered as Gait remarks,⁹⁰ "these celts are almost of pure copper the only foreign bodies being very small fortuitous quantities of iron, nickel, sulphur, lead, or zinc." A number of brnzebells, besides a few bowls and plates made of bronze were unearthed at Bahea in the Ranchi district, along with a copper handi, by Roy,⁹¹ and Dr. Campbell found a few plates and anklets of bronze at Pokhuria in Manbhum.⁹² These bronze articles are supposed to be of a subsequent date, but in view of the fact that numerous articles made of bronze have been discovered in the Chalcolithic strata of the Indus Valley, it is no longer correct to say, as did Vincent Smith,⁹³ that there has been no Bronze Age in India. The chemical analysis of some of these Chhota Nagpur bronzes has shown the percentage of tin to be in some cases as high as 29, and in others very near the standard proportion of ten.⁹⁴

Numerous copper artifacts of the prehistoric epoch have been discovered from almost all the provinces of Northern India, and "these discoveries", as Brown observes, prove the range of copper implements

all across Northern India almost from the Hooghly to the far side of the Indus, and from the foot of the Himalayas to the Cawnpore district."⁹⁵

Bengal Plains Peopled in Neolithic era

We have now before us ample evidence proving the existence of this great culture complex—polished tools-pottery grain-metal—on the highlands of Bengal almost on every side. Unquestionably, therefore, currents of this culture cluster must have flowed over the plains too, as has been demonstrated in the case of the shouldered celt. After the final effective retreat of the ice to the tops of the Himalayan peaks at the end of the glacial epoch, great changes were brought about in the plains extensive areas of which had no doubt risen sufficiently high to become habitable especially in the regions nearest the highlands: the climate had grown warmer and more congenial; vast quantities of fertilising silt continued to be deposited by periodic floods when the snow melted on the mountain side, and Neolithic man would certainly have extended his wanderings to the plains driven by food quest, to supplement the meagre stock available in the forest zone on the highlands. It must have been particularly so, after he had acquired a knowledge of the newly invented art of producing food by cultivation, when he would be attracted by the wide fertile plains of Bengal where food could be grown with little toil, and where ever-widening stretches of dry land were becoming fit for habitation and settlement with gradual desiccation. It is quite possible that at the initial stage the people who ventured out to the plains area might have changed their habitation with the demands of the season, like the Veddahs of Ceylon at the present day, who move to the low country and settle close to the rivers in the months after the rains and move back to the highlands when the large rivers overflow their banks.⁹⁶

With increased food supply, the population must have increased, and there is very little room for doubt that the forbears of the people whom we now meet with on the highlands tenaciously clinging to primitive methods of agriculture, spread far and wide over the plains and formed its earliest population.² These people who have been called Nishada form the substratum of the population of Bengal as of most other parts of India, and this people with a dark complexion, long head, wide nose, and medium stature must have formed the habitants everywhere in our area, the plains as well as the highlands. It must be observed, however, that we have no documentary evidence, by way of

skeletal remains, on the highlands or the plains, to establish, beyond question or doubt, these conclusions which offer us only working hypotheses that may change with fresh facts coming to light. Gait thinks that the so called aboriginal tribes now inhabiting Chota Nagpur are the direct descendants of the men who made the stone implements in this district.

Origin of Neochalco-Lithic Culture Cluster of Bengal.

Now, for the reconstruction of the history of culture in Bengal, we are faced with the all important problem of its origin; we have to enquire where this cluster of culture traits that brought our men from savagery to civilization, first arose, and by what approximate routes these basic culture complexes reached our area. In the first place, the gap between the crude culture of the hunters and fishers of Kuliana and the remarkably advanced one of the potters and farmers of Baidipur, Chakradharpur, Ranchi, Dumka, Durgapur, is considerable, and in the absence of evidence connecting the two, a local autochthonous development from the Palaeolithic to the Chalcolithic or what is called the "full Neolithic", does not appear to be probable, although some elements might have been contributed by our area. The great distance of time that separates the Palaeolithic culture from the Neolithic in western India has been demonstrated by Bruce Foote in a section of the Sabarmati river in Gujarat, where 50 feet of alluvium and 200 feet of blown loess stand between the two.⁹⁷ What Foote found in Gujarat, perhaps holds good for other parts of India too, though the same great gulf may not intervene between the two Stone Age cultures everywhere.

Failing to suggest a local origin for our culture, therefore, we have to pass in rapid review the Neolithic culture of the rest of India to find out where our affiliation lies and perchance we may have to examine our dependence on the great Afrasian zone which is being increasingly recognized as the focus whence civilization spread over the greater part of the Eastern Hemisphere. Neolithic artifacts have been distributed over a much wider area in India than Palaeoliths, being found almost everywhere that suitable rocks occur for the manufacture of these tools. Polished stone implements of very much the same type as those of Bengal are widely distributed over a large part of southern India, in various districts of the Madras Presidency, and specially the districts of Bellary, Anantapur and Salem; and the Bellary district is of particular importance, possessing, some of the richest Neolithic stations in India.

and having, as we have seen apparently formed factories or workshops of the chert industry.⁹⁸ In south-western India, also, in the Bombay area Mr. Todd has lately found a series of flake industries of the Clacton type and microliths,⁹⁹ and Neolithic artifacts in considerable numbers have been collected in Gujarat and Kathiawar.¹⁰⁰ They occur all along the ranges which border the Gangetic plains on the south, and are very abundant in Bundelkhand, in certain parts of the United Provinces, and in the northern districts of the Central Provinces.¹ In fact, they appear to be plentiful on the escarpments of the Vindhya to the north as well as to the south, and to show an increase in numbers as we proceed westwards from the highlands of Bengal, and besides, they exhibit a gradual improvement in quality, until we arrive at the Indus where the finest flakes and cores in India have been discovered,² although the same general types are evident everywhere. So long ago as 1875, Blanford exhibited some flakes and cores dug out of the nummulitic limestone in the bed of the Indus at Sukkur, and observed, "They are by far the most carefully formed of any hitherto found in India, and are so far superior to all ordinary forms made of the same material, that, as was pointed out by Mr. Evans in the Geological Magazine, they rather resemble those of obsidian which are found in Mexico and some other places." "It is certain", he adds, "that all the specimens I have yet seen from the river bed are singularly well formed, showing as a rule no trace of a flaw"³. Besides, Cockburn, speaking of certain flakes of large dimensions and fine workmanship which had been found at Rohri opposite Sukkur, across the Indus, observes, "In this case the material was true nummulitic flint, and the flakes produced from it are so perfect that they could hardly be matched with the pick of the specimens from Denmark"⁴. He also found some flakes of chert of very good workmanship resembling these from Rohri, in the south of the Mirzapur District.⁵ Lately, in 1939, H. de Terra also has declared, "In recent years Mr. E. S. Pinfold has collected from Rohri and Baluchistan a number of artifacts which he was good enough to show to me. At once it became apparent that they showed a much more developed technique, unequalled by any other implements from India we had seen, and as the material was flint, it seemed that at last we might find a region where abundant workshops could be found."⁶

These workshops where the art of manufacturing the finest stone implements in India, was developed and elaborated, were actually found

out by De Tera's party of scientists on the hill tops at the two sites of Sukkur and Rohri on opposite banks of the Indus where for a very long time before their visit, "immense quantities of imperfect flakes and cores have been found made from the flints which abound in the nummulitic limestone".¹⁰⁷ The flakes and blades from Sukkur, according to Paterson¹⁰⁸ who made an examination of their technique, show evident signs of three different ages, the earliest having a great majority of blades over flakes, and all blades somewhat crude and thick with a dark brown patination showing considerable age, and in the latest, flakes greatly outnumber blades but few of them are re-touched, and are "closely similar in type and fresh condition to specimens of the earliest Mohenjo-Daro culture", the third being intermediate between the two. At Rohri, on one of the hills, reports Paterson, were found a large quantity of surprisingly crude and irregular blades, though the cores were finely struck, while on another hill in the neighbourhood, there were enormous quantities of waste flakes and small chips, true flakes being rare and the cores mostly large, irregular and rough. Paterson observes: "The similarities, both in typology and state of preservation, of the Rohri implements to the stone tools of Mohenjo-Daro are indicative of an age approaching that of the earliest period of the Chalcolithic civilization of the Indus Valley". Yet, the absence on the hill tops of fine blades and true flakes and of pottery and metal, as noted by Paterson¹⁰⁹ himself, tends to suggest that the interval separating their industry from that of Mohenjo-Daro could not have been negligible. From a geological examination of the locality De Terra¹¹⁰ also asserts, "There appears to have been a considerable geological interval between the formation of the ancient silt (with which the hill-top sites are associated) and the construction of Mohenjo-Daro, during which the river deepened its channel. Hence from a geologic angle we are inclined to give these Stone Age sites a somewhat greater age than their typologic character would admit, which of course may not have exceeded a couple of thousand years." Blanford also had suggested that the makers of the perfected tools recovered from the bed of the Indus "may have lived later when the art of flint chipping had been brought to greater perfection".¹¹¹

Neolithic artifacts have been found in abundance at many other sites in Sind, and in great numbers throughout the Kirthar Range generally. But the sites have not been examined by competent scientists; we know only so far that at certain sites, such as at Budh-

ke-Takar, neolithic implements were not associated with pottery or other objects specially typical of the Chalcolithic Age,¹¹² and therefore, apparently of a comparatively early period.

Three Stages of Neolithic Culture in Indus Valley.

We thus discover in the Indus Valley three stages in the evolution of the Neolithic industry—the earliest, a Proto-Neolithic stage with comparatively crude tools which are very abundant, a second stage approaching the full Neolithic, yet short of it, with a very small number of fine tools and besides, lacking pottery and metal, and a final stage with perfected stone implements and exact replicas of these stone tools in copper and bronze, and besides, with pottery, agriculture, domesticated animals. writing, the wheel, etc., in fact furnished with the entire cluster of traits that are found associated with the Neolithic-Chalcolithic culture complex at its highest development. Accurate dating of the evolution of Indus Valley Culture which was the mother of all early cultures in India is not possible without a careful scrutiny of stratified deposits in the Indus region and beyond—in Kashmir, Kathiawar, Sind, Baluchistan and the Punjab—and trial excavations have proved their immense importance for a scientific reconstruction of the history of Indian culture, but they wait to be properly explored. Even Stein's explorations¹¹³ on the North-Western Frontier and further west in Baluchistan and Iran, were only superficial, and made in a hurry. At Mohenjo-daro with its seven successive cities, "the pottery is identical and most of the culture unchanged throughout"¹¹⁴; "with a few quite minor variations, the relics, seals, pottery, figurines and metal tools from all layers, belong to the very same mature and specialised types."¹¹⁵ At Harappa, Vats distinguishes eight strata, but even in the eighth the same burnt brick structures, terracotta toys and pottery, make their appearance.¹¹⁶ "Unfortunately", notes Mackay, "at Chanhudaro, as at Mohenjo-daro, the presence of seepage water from the Indus at a higher level than in ancient times, precludes the examination of still earlier occupations without installing costly pumping plant. The lowest occupation attained is obviously the heir to a long period of development; and whether that took place in the Indus Valley or elsewhere remains for the present an unanswered question."¹¹⁷

Indigenous origin of Indian Culture.

This question, however, has been definitely answered by the discovery of Proto-Neolithic industries in the Indus Valley itself, as

at Sukkur and Rohri, which have offered positive evidence of the indigenous origin of the Indus culture, and hence of Indian civilization, as emphasised by De Terra¹¹⁸ who observes: "In view of the uncertain origin of the lower Indus Valley civilization it seems the presence of such protoneolithic settlements on higher level might lead to a new approach to Indian archaeology, which so far has been inclined to stress the foreign derivation of Indian civilization. The Stone Age sites of Sukkur and Rohri may well represent an indigenous culture from which a more or less continuous evolution may have led to the first Indian urban civilization. Its history will be found to have been dictated as much by climate as by the changes of river level, as was the case with the predynastic cultures of lower Egypt." The evolution on the spot of the first urban civilization of India is also confirmed by the investigations of Prof. Childe who avers: The delicate and enduring adaptation to the Indian environment represented by the Indus civilization, can only have been created and spread over a vast area after a long period of incubation on the spot."¹¹⁹

Indus Protoneolithic Derived from local Palaeolithic.

The discovery, again, in the Indus Valley, of the various stages of evolution of a Palaeolithic flake and core culture from which undoubtedly have evolved the Neolithic cores and flakes in a direct line of succession, has placed the autochthonous origin of Indian culture on a sure and firm basis. As has been rightly observed: "The importance of the role played by Palaeolithic man in India has long been recognized, and from a typological comparison of Palaeolithic and Neolithic artifacts the inference has been drawn that it was actually on Indian soil that the latter were first evolved from the former. Be this view correct or not, there can be no question that the north-west of India, with its vast well-watered plains, with the abundance of game, its warm but variable climate—more propitious perhaps then than now—and with its network of rivers affording ready means of intercourse, must have offered a specially favourable field for the advancement of early society alike when man was in the hunting stage, and later when he had turned himself to agriculture and the domestication of animals or was opening up commerce with distant lands."

Evolution of Human Civilization and India's share in it.

The brilliant urban civilization of Western India, however, marks a phenomenal development from the crude Palaeolithic culture of the hunters on the terraces of the Soan and the Indus, and the culture traits associated with the former constitute some of the fundamental ele-

ments of human civilization. Its connection, therefore, with the history of the evolution of human culture calls for a careful examination. It is believed that after the glacial epoch human culture grew by a sudden spurt, and on such a momentous scale that we cannot think of independent evolution in different areas separated by wide distances. Thus Prof. Fleure¹²⁰ observes: "Human societies towards or after the effective end of the great Ice Age, developed a complex of inventions including cultivation, stone-grinding, the wedge and the lever improved wood-work, pottery and the beginnings of metallurgy. The beginnings of domestication of animals followed these inventions very quickly . . . The domestication of cow, sheep, ass, and dog, at least occurred fairly early along with the great inventions mentioned above, and it is possible that other steps were also made, one being the invention of the wheel." "On the whole it seems likely that the complex of inventions just described was evolved more or less together, and for the most part in one region, though some may have been found independently in different spots. The region probably included south-western Asia, with the plain of the Euphrates as its most important district . . . We may provisionally think of the region between the Persian mountain border and the Sahara as furnishing early cultivators with vast opportunities of social development."

Elliot Smith and Perry¹²¹ had propounded a theory which, as pointed out by Radin¹²² "claims that all the most significant features of primitive culture—the dual and the clan organization, agriculture, irrigation, pottery, metal-working, architecture, sun-worship, all the higher forms of religious and ceremonial customs—originated in Egypt and were then spread by groups of immigrants over the face of the earth." "The crude form of the theory", observes the same author, "as expressed in the writings of Elliot Smith and Perry, is so full of inconsistencies, so uncritical in its use of data, and so oblivious of chronology, that until it has radically purged itself it can hardly be intelligently discussed". Fleure, as we have seen above, would join Elam and Mesopotamia to Egypt to make up 'the early home of the inventions of civilization', but owing to his ignorance of the Indus civilization, he too failed to perceive that the Indus Valley forms an integral part of that home. But this theory still finds supporters among those expected to know better, as for example, Hutton¹²³ affirms that of the Mohenjo-daro civilization "the main features came in from Mesopotamia to the early civilizations of which it obviously bears a close affinity," although Marshall has

proved to demonstration that Western India was not a borrower, but an equal partner in the inventions of civilization, and we need offer no apology for the following rather long excerpt from his excellent summary of the position :

"One thing that stands out clear and unmistakable both at Mohenjo-daro and Harappa, is that the civilization hitherto revealed at these two places is not an incipient civilization, but one already age-old and stereotyped on Indian soil, with many millennia of human endeavour behind it. Thus India must henceforth be recognized, along with Persia, Mesopotamia, and Egypt, as one of the most important areas where the civilizing processes of society were initiated and developed. I do not mean to imply by this that India can claim to be regarded as the cradle of civilization ; nor do I think on the evidence at present available that claim can be made on behalf of any one country in particular. In my view, the civilization of the Chalcolithic and succeeding ages resulted from the combined effort of many countries, each contributing a certain quota towards the common stock of knowledge. From the Neolithic, if not from the Palaeolithic Age onwards the most populated regions were undoubtedly the great river valleys of south and south-east Asia and northern Africa, where the cold was never intense, where food and water were ready to the hand of man, where pasturage was the natural waterways. In each of these river valleys, on the banks of the Nile and the Euphrates as on those of the Marun, the Helmund, or the Indus, mankind may be assumed to have equal chances of development, and it is natural to suppose that progress in one direction or another was being made in all these regions simultaneously and doubtless in many others besides. If this view, which is surely the most rational one, be accepted, if we regard this wideflung civilization of the Afrasian belt as focussed in various centres and developed by the mutual efforts of various peoples, we shall better understand how, despite its general homogeneity, it nevertheless comprised many widely differing branches each of which, in its own sphere, was able to maintain its local and individual character."

• Professor Childe¹²⁴ also points out that at the date when Egypt and Sumer flourished, the Indus Valley "could already boast a civilization fully equal to that of Egypt or Sumer" that Egypt, Sumer, and the Punjab form "the three oldest centres of true civilization" which thus lie on a belt between the 25th and 35th parallel, and that "geographically a certain unity characterises the whole region." Prof. Kroeber¹²⁵

also asserts : "One of the major significances of the Indus discoveries is the establishment of a high civilization co-eval with those of Mesopotamia, Turkestan, and Egypt, equal to them in richness, connected with them by trade and no doubt in inter-influencing, similar in basic trends, but thoroughly independent in its specific qualities and manifestations. Co-eval is used deliberately ; for what was high culture by 3,000 B. C. must go much further back in its beginnings". The independent character of the Indus culture is also emphasised upon by Childe:¹²⁶ "India confronts Egypt and Babylon with a thoroughly individual and independent civilization of her own, technically the peer of the rest. And plainly it is deeply rooted in Indian soil. The Indus civilization represents a very perfect adjustment of human life to a specific environment, that can only have resulted from years of patient effort. And it has endured ; it is already specifically Indian and forms the basis of modern Indian culture." From an examination of another element of the Indus culture, namely, its script, Hunter¹²⁷ has also arrived at the self-same conclusion : "The dominant impression mentally registered after a survey of the sites and the remains of Mohenjo-daro and Harappa, and especially of the inscribed objects, is that this civilization was independent : remarkably independent when its undoubted commercial connection with Mesopotamia is recalled. Consider the evidence of epigraphy alone. Among nearly eight hundred inscribed objects, we have, to date, not a single inscribed brick tablet, cylinder, cone, or mace-head."

Cradle of Human Civilization.

With our present ignorance of the deepest culture-bearing strata of the Indus region and also of other areas in Afrasia, it is not possible to arrive at any definite conclusion with regard to the exact area where the first great revolution took place resulting in the invention of the fundamental elements in the civilization of man, yet a summary of our present knowledge on this point may here be attempted. The cultures unearthed by Stein in Baluchistan and southern Iran show that "the region must once have formed a cultural continuum extending from the Tigris to the Indus,"¹²⁸ and on the other hand, the area forming a link between Mesopotamia and the Nile Valley, has begun to be explored of late, so that a continuous culture zone from the Nile to the Indus has now been well established on definite positive evidence. At Susa in Elam in the foot-hill country east of Sumer, an early culture considered by some to be older than, and at least co-eval with Sumer, but in some respects distinct from it, was discovered long

ago.¹²⁹ Both the early Sumerian and Indus Valley cultures with the Iranian cultures lying between including the Elamite of Susa have elements in common with the early culture unearthed by Pumpelly¹³⁰ at Anau near Merv in the Turkestan steppe, just north of Iranian plateau, where over fifty feet of culture-bearing deposits have been laid bare, and shown to possess a cereal-growing animal-raising people far back in the Neolithic, beyond 8,000 B. C., as Pumpelly claims. In this region of Central Asia some have looked for the first beginnings of the great culture-complex of South-Western Asia, but the Anau chronology still lacks solid firm basis. Prof. Griffith Taylor, presiding over the Geography Section at the Cambridge session of the British Association in 1938, expressed the opinion that like the great biological changes involved in the evolution of man, "major culture-changes are also essentially responses to environment", and that, to him, "there is no region more likely than south central Asia where the tremendous development from the nomadic hunter to settled village dweller was likely to occur."¹³¹ Childe has reached a tentative conclusion that all the cultures in south-west Asia seem to be allied to constitute an Asian family contrasted to the African and Anatolian, that only Nineveh I or Anau look sufficiently primitive to be the ancestor of the whole family. The oldest culture yet known in Asia compared with the earliest Nilotic cultures, reveals underlying agreements that can hardly be accidental, but which are, however, offset by concrete differences. "At the moment," he observes, "it looks as if the archaeological record begins with two irreducible culture provinces. To some extent these coincide with provinces which were already distinct in Upper Palaeolithic times. Possibly the cultural divergences then already subsisting survived the first revolution. To which, if either, province that revolution should be credited can not be determined by direct evidence. Speculations on that head lie outside the realm of science."¹³²

With regard to the beginnings of culture in Europe, Childe was able to establish on unimpeachable archaeological evidence, that elements of civilization were in fact diffused from the Orient to that continent.¹³³

Date of the Beginning of early civilization.

With regard to the area of the origin of human civilization, then, the only thing we can be sure of is that it took place in the Afrasian zone, with the Indus region as an equal and independent partner with the rest; as regards the date when this early civilization began to

function, archaeological investigations in recent years appear to trace back the beginnings of all the three great early cultures, on the Nile, the Euphrates, and the Indus, to about the same age, viz. the period about the sixth millennium B. C. One of the basic dates of early chronology, "The beginning of the historical or Dynastic period in Egypt and Sumer now constitutes a fairly accurately dated horizon. The coincidence of Egyptian and Mesopotamian sources is now close enough to permit of this horizon being dated with general consent about 3100 100 B. C."¹³⁴ In Egypt, the Predynastic period which has now become known in great detail extends back to at least 5,000 or 5,500 B. C. with grain-growing, stock-raising, and polished stone implements from the Early Predynastic stage.¹³⁵ With reference to Sumerian culture, Childe¹³⁶ affirms, on the basis of the latest excavations, "I cannot believe that the Al'Uboid culture represented in the lower levels at Erech is later than 4,500 B. C.," and the Tel Halaf culture, of which the settlements go deep below the Al'Ubaid foundations, "might take us well back into the sixth millennium B. C.". Even here is disclosed, as Childe points out, a community well organized for works of public utility, an advanced economy, and a highly developed craftsmanship, so that the beginnings of culture are yet a far off. The site of Tell Hassuna in the same region going back to a still earlier period has revealed a people with farming, cattle and pottery, Piggot, *Prehistoric India*, p. 48) At Susa, "the lowest level which is copper-bearing, dates, by the most conservative rating from about 4,250 B. C., and according to others, from a thousand or more years earlier",¹³⁷ that is, the beginnings of Elamite culture lead back to the fifth or sixth millennium B. C. Very recently Dr. Carlton S. Coon of the Pennsylvania Museum has discovered in a cave in northern Persia, farming tools that are dated by him to be sixth millennium B. C.

Coming to the civilization of the Indus Valley, we are unable as yet to demonstrate, by chronologically graded strata, all the various stages in the evolution of our material culture, but dates may be determined with fair accuracy from a comparison of the stage of development reached by the various elements of culture. With regard to agriculture Kroeber¹³⁸ observes : "Actual specimens of wheat or barely or, their husks or imprints, have been recovered from the Early Predynastic of Egypt, from the Early Sumerian Jemdet Nasr, from the lowest level of Anau, and from Mohenjo-daro. The species or varieties vary somewhat, as do those of the tame animals ; but this only argues that the history was already old six thousand years ago". In the West

India Culture zone, at Rañā Ghundai in Baluchistan where there evidences of nine, or at least, five main periods of occupation, the earliest one may be compared in type to the first settlement at Tell Hussuna in Mesopotamia and show the transition from the hunting, semi-nomadic way of life to that of the settled agriculturist. Piggott, *Prehistoric India*, pp. 49, 129.

An examination of the scripts used in the various culture-provinces of the ancient Orient has also revealed the intimate intercourse among them, and brought out certain definite data about their relative age. It is significant that while it is difficult to recognize any identity of the signs of the Indus script with the later cuneiform characters of Mesopotamia, an examination of certain tablets excavated at the early Sumerian site of Jemdet Nasr has enabled Prof. Langdon to discover that "a good many new signs, unknown in later Sumerian, are present in this archaic script, and some of them are identical with signs of the Indus valley script. The archaic period represented by the printed pottery and tablets come down to about 3,500 B. C., and goes back to an indefinite period, certainly as early as 4,000 B. C."¹³⁹ Hunter who has made a sifting analysis and close scrutiny of the signs of the Indus or Proto-Indian script, as he calls it, and compared them with all the writings of the Afrasian area, finds that "the Proto-Indian script is connected as to its origin with Egypt on the one hand, and Sumer-Elam on the other", and that "the Brahmi, Sabaeen, a portion of the Cypriote, and a portion of the Phoenician scripts, are derived from Proto-Indian, due in the last three cases to commercial intercourse by sea, via the Arabian Sea, the Red Sea, and the Mediterranean", as it presupposes a common meeting ground of their sailors and merchants in the Isthmus of Suez and the mines of Sinai". He also affirms that "the common ancestry or mutual borrowing of the three scripts (Indus, Sumerian, and Proto-Elamitic) dates to before 4,000 B. C."¹⁴⁰

On the basis of certain Indus seals found at various ancient sites in Elam and Mesopotamia, the probable date of the Indus Valley culture has been placed by Marshall¹⁴¹ between 3,250 and 2,750 B. C., and Mackay¹⁴² has brought down the lower date to 2,500 B. C. As some of the seals belonged definitely to the Predynastic period of Sumer, the higher date of Marshall is certainly a conservative estimate. Vats¹⁴³ has concluded that at Harappa, "from the fourth stratum downwards to the eighth, the culture is earlier than Mohenjo-daro", and that it goes back to "the first half of the fourth millennium B. C." But Marshall, Mackay, or Vats did not trace the culture down to the

virgin soil, and Marshall¹⁴⁴ points out, "At the moment when the civilization reveals itself to us, it is already fully fledged, and we are bound, therefore, to postulate for it a long period of antecedent evolution", and that a thousand years would be all too few for such a result", and besides, that the Indus civilization as we find it. "is already age-old and stereotyped on Indian soil, with many millennia of human endeavour behind it."

Pottery, as usual in prehistoric studies everywhere, would concretely reveal the culture phases in the Indus civilization, and N. G. Majumdar's trial pits¹⁴⁵ at some of the numerous chalcolithic sites brought to light by himself, did actually disclose four pottery groups that, he thinks, may be arranged in regular sequence, but his theories are inevitably provisional, and will so continue, until his sites have been properly investigated to the remotest depths. The culture sequences discovered by Majumdar at the sacrifice of his life¹⁴⁶ have enabled Piggott to classify the cultures of western India and Baluchistan into several well demarcated groups.

From the above it will be clear that the beginnings of the higher urban culture of the Indus with copper-bronze, writing, burnt brick houses etc., will certainly hail back to about 4,000 B. C., but the yet earlier beginnings of illiterate rustic folk with plainer arts of life cannot be fixed later than the fifth, or even the sixth millennium B. C., like the age of "the poor villagers ignorant of writing on the banks of the Nile¹⁴⁷ at Badari or Deit Tasa, or that of the deepest levels at Erech or Tel Halaf. This conclusion is borne out by the discovery of De Terra¹⁴⁸ that the geological platform of Mohenjo-daro is separated by an interval of two thousand years from the flake and blade workshop of Sukkur-Rohri which is thus dated back to the sixth millennium B. C. At the same time we must take note that the similarity in typology between the artifacts from the two areas is unquestionable,¹⁴⁹ so that a concrete link connecting Mohenjo-daro with the stone industry in the Indus Valley is definitely established, and it seems reasonable to expect that links equally unambiguous will come to light with regard to other elements of the Neolith-agriculture complex with further exploration at the sites of which so many are waiting the spade in Western India and Baluchistan.

Date of the Indus Neolithic.

The considerably advanced technique of the Rohri-Sukkur artifacts, as well as the combination in the same area of so many different techniques belonging to the Stone Age, as noted by Paterson,¹⁵⁰ inevit-

ably suggest that there must have been here a very long period of experimentation and perfection in the art of stone flaking and grinding; and bearing in mind the fact that in earlier epochs culture did not advance so fast as it did in later times, we would have to premise several millennia for the rude weapons of the old Stone Age to be developed into the beautiful tools of the Indus Valley.

Prof. Wadia, on geological grounds, has placed the Neolithic industry of India in the Sub-Recent period, running from 20,000 to 8,000 B. C. ¹⁵¹ On the basis of the archaeological records in the Indus area so far known to us we have perhaps to bring it down considerably. We shall not probably wander very far from the truth, if we accept Nelson's average for the beginning of the Neolithic in Egypt Mesopotamia to hold true also of our area of the Afrasian culture zone: "Published opinions", observes Neleon, ¹⁵² "concerning the dawn of the Neolithic- agricultural stage for Egypt and Mesopotamia range all the way from 6,000 B. C. (Peake and Fleure, Childe) to 18,000 B. C. (Breasted, Montelius, De Morgan), and we shall strike the average and take 12,000 B. C. as the safest estimate." "The beginning of the copper-bronze Age," he goes on, "has by several writers (Pumpelly, Peake and Fleure) been placed between 5,000 and 6,000 B. C." It must be borne in mind, however, that these dates are tentative and are proposed only to afford a working hypothesis.

Piggott also observes, "The Presence of archaic survivals, such as Levallois flaking and oval hand-axes, in addition to the cores and blades, does suggest that the Rohri industry may be of relatively great antiquity". (Prehistoric India by Stuart Piggott, Penguin Books, 1950 : p. 39).

Growth of early civilisation in Bengal and India.

From what has been said above, it will appear that early civilisation, including agriculture, pottery, domestic animals and improved stone tools, had its origin in the extensive Afrasian zone extending from Egypt to the Indus Valley, and that early elements appear to have grown up and developed independently in each of the three great sub-regions of Egypt, Mesopotamia, Persia, and Western India, although it is not unlikely that for the very first birth of culture we may have to look for a single spot somewhere in this region. In India, this culture-cluster taking shape in the Western districts, must have travelled east and south; sites in the Ganges Valley, in Kathiawar, and in the South, are gradually being discovered showing the march of the ancient culture including farming, pottery, stone tools etc. in those directions.

There appears to have been an independent centre of culture origin in South-Eastern Asia, and certain rare elements, like the so-called 'shouldered celt' must have travelled into India from that region, but the full value of its contribution to Indian prehistoric culture, is not very clear as yet. It has been, however, proved beyond doubt that in historic times, as also perhaps in the late prehistoric, waves of culture, including migration of the people, did proceed from India to South-East Asia, extending into the Pacific, as far as Polynesia, but about the earlier prehistoric age the mutual relations between India and the Far East are far from clear.

The Chalcolithic culture of the Indus Valley which was a direct product of the earlier West-Indian culture, had certainly communication with the East and the South for its very existence, for the raw materials absolutely necessary for the manufacture of its art products. As Mackay has shown, copper the Indus-Valley people must have obtained from Chotanagpur, that is, the highlands of Bengal, as is demonstrated by the fact that the Mohenjo-daro copper contains a trace of nickel, and the same alloy is found in the copper from the old but still worked mines in the latter area. They probably obtained tin also from here, and also gold which was produced in fairly large quantities in the ancient gold mines with deep shafts observed by Murray; the richer gold mines of South India certainly also supplied this metal, as stated by Mackay. From a comparison of the numerous beads of stone devitrified glass and terracotta, in the Dhalbhum area in the Bengal highlands, Murray finds that they are almost identical with those unearthed at Ur, Khorsabad, Harappa and Mohenjo-daro, "the most striking instances of similarity to Ur are the flattened barrel-shaped stone beads with lined ends, and the terracotta sections", says Murray; and he concludes, "The ancient civilisations that existed at Ur, Harappa, and Mohenjo-daro seem to have many features in common that can only have originated through intercourse, and time may prove that these influences extended further eastwards than has been thought" (Murray, *op. cit.* p. 103). Mackay has also noticed that decorated carnetian beads at Mohenjo-daro, compared with some of identical material shape and mode of decoration show a striking similarity (*op. cit.* 146.)

The lines of communication of Indus people led as far south as Mysore from where they obtained amazonite and other stones. Mackay points out, "Mysore supplied a beautiful green stone of which a cup was found at Mohenjo-daro" (P. 18). This intercourse between

Western India and Bengal and the South must have commenced before the Indus culture developed its full stature and some elements of civilisation from that area, like food-production, must have permeated through the East and the South, as is amply demonstrated by the existence of numerous sites with the Neolithic culture complex in these regions.

From Westerns India, at first, it seems, it was only waves of culture that travelled east and south, unaccompanied by human migration, at least in any appreciable number. But about the early centuries of the third millen nium B.C., when the Aryan hordes, no doubt at a comparatively low stage of culture, sprang upon the Indus people like a mighty avalanche, the latter, at least a good-size fraction of them, must have spread and carried their culture to the farthest ends of India, to Kashmir in the north, to Bengal and Assam in the east, and also to the south. The Indian civilisation that took shape from this great conflict of cultures, is pictured in the hymns of the Rigveda.

In the above discussion has been offered, at best, only a working hypothesis on which to build the history of Indian civilisation and culture, and for a full unravelling of India's distant past, further light must be waited for.

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VRATYA AND VRATA

By Sudhir Kumar Das

THERE is a long and detailed controversy on the origin and meaning of the term *Vratya*. Long ago R. Bhagavat by an analysis of the *Tandya-Brahmana* of the *Sama-Veda* and *Latyayana-Sutra*, pointed out that the term originally referred to the non-Aryans who were later on converted into Brahmanism¹. Recently an attempt has been made to give a new meaning of the term *Vratya* by stating that originally it referred to those Aryans who preached Brahmanism among the non-Aryans. The Brahmanas soon forgot their deities and rituals and thus became degraded. Such degraded Brahmanas came to be known as *Vratyas*.² An analysis of the earlier texts dealing with the *Vratyas*, however, proves otherwise. A consideration of the following will perhaps, make it clear that the *Vratyas* were originally un-Vedic or non-Aryans.

Un-Vedic Character of the *Vratyas* in Vedic Literature:—

A general description of the cultural traits of the *Vratyas* given in the Vedic literature refers to their non-Aryan or un-Vedic affiliation. It has been said in the *Atharva-Veda* and *Pancha-Vimsa-Brahmana* that the *Vratyas* "rove about in bands in open chariots of war, carry bows and lances, wear turbans and garments with a red border, wear shoes and sheep-skins folded double and possess cattle . . ."³ Again, their leader "wore a turban, carried a whip, a kind of bow and was clothed in a black garment and two skins, black and white, and owned a rough wagon covered with planks. Others had garments with fringes of red, two fringes on each skin folded double"⁴. Another passage states that the *Vratyas* are those "who swallow poison, who eat food of the common people, who call good words bad, who strike with a stick him who does not deserve to be beaten or punished, and who though not initiated speak the speech of the initiated." Lastly it has been said that they do not practise agriculture (*krisi*) and trade. They have different code of laws.⁵

This description of the *Vratyas* bears close similarity with that of the early un-Vedic people of India. Dress, food, weapons, etc., described with contempt are presumably those of the un-Aryan

people. Secondly their ignorance of agriculture and trade is very significant for we know that the Vedic Aryans were agricultural and commercial people. Thirdly it has been said that they had different code of laws i.e., different from those of the Vedic Aryans. Fourthly it has been clearly pointed out that their tongue was also different; "they call what is easy to say difficult." It shows that their language was foreign to the Vedic Aryans. At a later stage of history, however, though *a-dikshita*, they speak *dikshitavacham*.⁶ This refers to the linguistic sway of the Vedic Aryans over the non-Vedic people. Lastly it is to be noted that they were not settled people like the Vedic Aryans. Properly speaking they were nomads roving hither and thither, with their peculiar mode of dress and living. All these are presumably un-Vedic traits.

Epics and Dharmasastra:—

This finds further corroboration from the accounts given in the Epics and the *Dharmasastras*. It is because of their un-Vedic and anti-Brahmanical traits that the *Mahabharata* classes the *Vratyas* with the off-springs of the society of poisoners, adulterers, drunkards,⁷ etc. The *Dharmasastra*-writers refer to the *Vratyas* as, (a) *patita-savitri*, i. e., those who have not been ordained with *upanayana* and (b) those who are born of *varnasamkara* or mixture of castes.⁸ It is, however, to be noted in this connection that the castes which sprang from the mixture of different classes of *Vratyas* are frankly and clearly those that were originally considered un-Vedic or non-Brahmanical but were later on gradually Aryanised or Brahmanised and included within the Brahmanical fold.⁹ That the different castes, described in the *Manusamhita* were not originally included within the Brahmanical fold is clear from the comments of the commentators on the characteristic traits of these castes. Thus Govinda remarks that the *Bhrigakantas* live by sorcery; the *Avantyas* and the *Vatadhanas* serve in war and all other *Vratyas* are spies. The *Natas* and the *Karanas* are described as spies, and the *Khasas* and the *Dravidas* are all water-carriers and distributors.¹⁰ There can hardly be any doubt that the tribes like the *Dravidas*, *Khasas* etc., were originally un-Vedic or un-Aryan, and it was only at a later date that they were Brahmanised. In order to give sanction to such conversions the *Dharmasastra*-writers had to point out that the *Vratyas* originated from the mixture of castes, and were accepted within the Brahmanical fold.

That the *Vratyas* were outside the Brahmanical pale becomes further clear from the statement of Manu who enjoins that anybody

officiating as the priest of the *Vratyas* shall have to be purified by the performance of the *prajapatya*-rite or by the observance of certain other penances.¹¹ Further, *Manu* specifically points out that to live as a *Vratya* does is an offence.¹² It clearly suggests that the *Vratyas* belonged to a non-Brahmanical community. Even the *Panchavimsa-Brahmana* states that those who lead the *Vratya* way of life were considered base and were reduced to a baser state since they did not observe *brahmacharya* nor did they till the soil nor engage themselves in trade.¹³ That they were eventually outside the Brahmanical fold becomes still more clear when in the *Dharmasastras* *Vishnu* is said to include the *Vratyas* in a list of persons who are always to be avoided. He also points out that no gift or food should be taken from them.¹⁴ It has also been said that Gods do not eat food offered by the *Vratyas*.¹⁵ Since the *Vratyas* did not belong to the Aryan or Brahmanical community, they have been recommended in the list of victims in the *Purushamedha* sacrifice in the *Yajur-Veda*.¹⁶

Conversion of the *Vratyas* :—

It is also to be noted that every attempt was made by the Brahmanical society to convert the non-Brahmanical *Vratyas* within their fold. With this end in view a number of purificatory rites were invented to convert the un-Vedic or the pre-Vedic Indians. Of such rites the most important one is the *Vratyastoma* which was essentially a rite for the conversion of the *Vratyas*.¹⁷ *Vratyastomas* are four in number: the first is meant for all the *Vratyas*, the second for those who are *abhisasta* and lead a *Vratya* life, the third for those who are younger and lead a *Vratya* life, and the fourth for those who are old and yet lead a *Vratya* life.¹⁸ According to the *Panchavimsa-Brahmana* the first *Vratyastoma* readmitted the degraded Aryans i. e. the *Vratyas* into the Aryan fold¹⁹; the second admitted the base and the censured, who also were presumably non-Aryans. This is proved by the important role played by the cattle in the purificatory rites. "It is the cattle that leads the base to superiority." The third is meant for re-admission of those Aryans who stayed with the non-Aryans since childhood and the fourth for the degraded Aryans.²⁰

It is clear that there were different grades of the *Vratyas* for whom there were different kinds of purificatory sacrifices known as *Vratyastoma*. It is also clear that originally these rites were sanctioned as rites for the conversion of the non-Aryans alone, but later on the degraded or the fallen Aryans had also to go through these purificatory rites for re-admission to the Aryan or Brahmanical society. This will be fur-

ther evident from the following :

The *Latyayana-Sutra* states that there should¹ be at least 33 *Vratyas* for performing the rite, and they should select the most learned or the richest among them as the *Grihapati*,²¹ and they should partake the sacrificial food after their chief. The commentator insists that there should be at least 33 communities seeking for the purificatory rite. It shows that there were different *Vratya* communities and that the *Vratyastoma* was originally a sort of collective purificatory rite purifying the *Vratyas*. It reminds us of the present day *suddhi*-ceremony which is but a collective purificatory rite for converting the non-Hindus and the fallen Hindus. The practice of selecting a leader and to perform the rite through him is a non-Aryan practice. Even today among many non-Aryan tribes socio-religious collective rites can be performed only through their respective leaders.

The *Vratyata-suddhi-samgraha* which deals with the different purificatory rites for the conversion of the *Vratyas* enjoins that the *Vratyastoma* is to be performed in the ordinary fire i.e. '*laukika-agni*' which certainly refers to the ordinary fire of the people as distinguished from the fire used for Brahmanical rites.²²

There are again different statements in the *Sutras* to the effect that "a *Vratya* ceases to be a *Vratya*" by the performance of the *Vratyastoma* which enables him to have social intercourse even with the Aryans or the *Brāhmanas*. Thus it is said, "when such sacrifices are performed the *Vratyas* having secured the rights and the privileges of the *dvijas* or the first three regenerate castes, may afterwards learn the *Vedas*, perform sacrifices and make presents (to the *Brahmanas*), and the *Brahmanas* may teach them the *Vedas*, perform sacrifice for them and receive presents at their hands and even dine with them, without being required to submit to penance".²³ It is thus clear that the rights which were previously denied to the *Vratyas* were granted to them after they had gone through the rites of conversion.

The *Srauta-sutra* further enjoins that after the performance of the *Vratyastoma* a *Vratya* shall bestow all his belongings to an inferior Brahmin of Magadha or upon one who has not given up the *Vratya* practices.²⁴ It is thus clear that such a converted *Vratya* gives up all his belongings and habits of his previous life. This is undoubtedly a direct hint at conversion. Lastly the statement that "faith has become his paramour, mantra his Magadha"²⁵ also clearly refers to the conversion of the *Vratyas*. Such a *Vratya* having become holy through his acquired *brahmacharya* is emphatically the representative of *Brahma*.

That the *Vratyas* were outside the Vedic or the Brahmanical fold becomes further clear from their constant association with the East which was primarily the land of the non-Aryans in the earlier days of the Vedic period. In the *Vratya-Book* of the *Atharva-Veda* 'magadha' (an inhabitant of Magadha) has been described as a friend of the *Vratya*.²⁶ Besides, the *Srauta-Sutras* of Katyayana and Latyayana enjoin that after the performance of the *Vratyastoma* the *Vratya* shall bestow all his belongings upon an inferior Brahmin of Magadha.²⁷ The latter work also refers to the car of the *Vratyas* as *prachyaratha*.²⁸

This association of the *Vratyas* with the East is very significant. It points out that the *Vratyas* were primarily Easterners outside the pale of the Vedic Aryans. Even the *Satapatha-Brahmana* refers to the Easterners as *Asuras*. "Wherefrom the people who are godly make their burial places four cornered, while those of the *Asura*-nature, make them round".²⁹ These people are, no doubt, the Magadhas, Vangas, etc. In this connection it is to be noted that the Aryans migrated towards the East in a very late period. Even as late as Baudhayayna and other *Smriti*-writers, the Eastern region, the habit of the Magadhas, Vangas, etc. was considered to be an impure land and anybody visiting the region had to go through certain purificatory rites after their return.³⁰ It shows that the *Vratya* or the *Asura* culture of the East which was undoubtedly un-Vedic or non-Brahmanical continued to prevail there till the region was wholly Aryanised or Brahmanised.

But it is wrong to say that the *Vratyas* dwelt only in the East. Even the *Atharva-Veda* states that "they are in every direction". In fact the term *Vratya* referred to the pre-Vedic Indians in general. East came into prominence during the Aryan migration from the North-West, and therefore the Vedic Aryans were more concerned with the East. It is to be admitted that the East at that time was a stronghold of un-Vedic and non-Brahmanic culture of the *Vratyas*, the *Asuras* the *Dasas*, *Dasyus*, etc.

Un-Vedic religion of the *Vratyas* :—

More interesting in this connection is a study of the religion of the *Vratyas* and the non-Aryans described in the texts. That the pre-Vedic religion of India was anti-Vedic and anti-Brahmanical becomes clear from certain statements made by the Aryans about the hostile peoples. They are described in the *Rigveda* as 'akarman' (X. 22. 8), *a-brahman*, *a-Vrata*, *a-yajin*, *anya-vrata*,³¹ etc. Thus the pre-Vedic Indians from the Vedic-Aryan point of view were devoid of

rites, indifferent to gods, lawless, non-sacrificing and followers of strange ordinances, strange in the sense that they practised rites, paid homage to the deities, followed peculiar customs and ordinances that were foreign to the Vedic Aryans. All these designations applied to pre-Vedic Indians refer to their un-Vedic and anti-Brahmanical character.

From a consideration of the facts stated above it is permissible to assume that the *Vratyas* were originally certain nomadic tribes, presumably of the East, but certainly outside the pale of Vedism or Brahmanism. They had their own peculiar customs and cults that were foreign to those of the Vedic Aryans, but they could be received into the Brahmanical fold by the performance of certain purificatory rites. It is only in the later period that the term *Vratya* came to be used in an extended sense, meaning the degraded and the fallen members of the Brahmanical society.

Converted un-Vedic Indians glorified in the *Atharva-Veda* :—

But if the term *Vratya* referred to the pre-Vedic Indians, it seems difficult to understand why the *Vratya-Book* of the *Atharva-Veda* should pay such extravagant compliments and show them such respect. It may be argued that the glorification of the *Atharva-Veda* was attributed to those *Vratyas* who were converted and thereby included within the fold of the Vedic-Aryans. Even Sayana admits that the description of the *Atharva-Veda* does not apply to all the *Vratyas* but to very powerful, universally respected and holy *Vratyas*.³² Secondly it, may be argued, as Dr. Chatterji does, that the *Vratya-Book* may also be the work of Aryans who felt fascinated by the *Vratyas* with non-mid-land practices and perhaps by the wild mysticism, for the *Atharva-Vedic* hymns are highly mystic in this connection".³³ Whatever may be the reasons it admits of no doubt that the *Vratya-Book* is an idealisation of the converted pre-Vedic Indians who previous to their conversion observed rites and practices foreign to the Vedic Aryans.

***Vratyas, Observers of the Vrata-rites* :—**

We have so far advanced arguments to show that the *Vratyas* were outside the pale of Vedism and Brahmanism. We may now proceed to argue that the *Vratyas* were those pre-Vedic Indians who performed the *Vrata-rites* or those whose main religious plank was the performance of the *Vrata-rites* as opposed to and distinguished from the *Yajna-rites*. In this connection certain remarks levelled by the Vedic Aryans against the hostile pre-Vedic Indians are full of significance.

The pre-Vedic Indian has been referred to as 'a-vrata', 'anya-vrata' and 'a-yajin', i.e., they were lawless, followers of strange ordinances and a non-sacrificing people. Yajna was the characteristic feature of the religion of the Vedic Aryans while the pre-Vedic Indians did not perform any such sacrifice. That is why they have been referred to as 'a-yajin'.

From a study of the Vratya-Book of the *Atharva-Veda*, Dr. Chatterji opines, "they suggest the presence of a Saiva cult quite different from the one presented by the Vedic World".³⁴ That Siva as a deity in the form of *Linga* and bull is a pre-Vedic non-Aryan deity admits of no doubt. It is interesting to note that the *Asuras* are described in the early texts as 'sivadevah' or the worshipper of the phallus. The truth of this statement is borne out by the discovery of remains of many stone and terracotta *Lingas* in many Asura-sites of Chotanagpur.³⁵ A reference to relevant findings of the pre-historic Indus-valley culture and the place of the Phallus and Siva in the Vratya-rites is also very significant in this connection.

Reverence paid to the cattle and the rites practised with it are also important traits of the Vratya-religion. An analysis of the popular Vrata and primitive rites shows that reverence paid to the cattle and the rites observed with it were foreign to the Vedic Aryans. That the cattle played an important role in the Vratya-Asura culture is also borne out by the prominence given to the cattle in the Vratyastoma sacrifice. That it was an essential part of the Asura religion is also proved by the discovery of many figures of bull (which is symbolical of reproductive energy) in many Asura sites of Chotanagpur.³⁶ The widely practised cattle-rites among the non-Aryan tribes is a positive proof of their pre-Vedic origin. In the Vratas too the cattle-rites play a significant part. Brahmanism absorbed this trait of cattle-worship from the pre-Vedic Indians when the Puranic myths and legends were invented, and Siva was associated with the bull. Even to-day in Bengal the worship of the clay image of Siva and bull is very common.

The pre-Vedic Indians, particularly the *Asuras*, have been further described as 'mayinah'. Sayana explains the term as 'kutilah'. Again he says, "mayinah-maya-vantah-asurah".³⁷ Here the *Asuras* have been called magicians. This is very significant. It invariably refers to the magical rites and practices performed by the pre-Vedic Indians. It is also interesting to note that the essential traits of the Vrata-rites are also surcharged with magic.

Wide ethnological investigations also reveal that the essence of

pre-Vedic religion is magic. It consists of reverence to the trees and plants, phallic and fertility cults, megalithic cults and ancestor-worship, matter cult, totemistic and animistic cults, cults of the heavenly bodies, etc. The *Vrata*-rites of to-day are simply surcharged with all these features of the pre-Vedic and non-Aryan cults.

Etymological meanings of the terms *Vratya* and *Vrata* :—

Attempts may also be made to correlate the terms *Vrata*, *Vraata* and *Vratya* suggesting that the *Vratyas* were those who observed the *Vrata*-rites. The term *Vrata* has been derived from the root *vri*, which means to secure, to cover, to encompass, to surround, to envelop, to restrain, to ward-off, to encircle, etc. *Vrata* is probably an old past passive participle form of the root *vri*. It means anything enclosed, encircled or enclosed place, ordinances, etc. It is interesting to note that the basic root meanings correspond with the significance of different traits of *Vrata*-rites. It is well known that certain important elements of *Kumari-Vratas*, are observed in enclosed places (i. e. on the *Alpananas* drawn) with a view to envelop, cover, ward off, etc., the evil spirits and to secure the best material benefits. Thus it follows that the rites observed in enclosed places with such motivation are nothing but *Vratas*. *Vrata* signifying vowed observances or ordinances was a later adaptation by the Brahmanical society. When the Rig-Vedic Aryans designated the pre-Vedic Indians as *any-vrata* or *a-vrata*, they presumably referred to the observers of the rites and practices which were foreign to them.

In this connection it is profitable to refer to the term *Varana* which is also to be derived from the root *vri*. *Varana* means the act of scaring, covering, keeping off, etc. These are, no doubt, essential traits of the *Vrata*-rites as well. Besides, *Varana* is also the name of a particular magical formula. Chanting of the *Chhadas* or magical spells likewise pre-dominate in the *Vrata*-rites. The term also refers to a particular tree which is believed to possess magical virtue. In *Vrata* rites too, plants with magical virtues are essential. Even to-day in Bengal and other parts of India *Varana* is done by women folk in all socio-religious rites and ceremonies with some magical import. In fact it can be said that *Varana* is a part of the *Vrata*-rites.

Similarly the term *Vraata* has been derived from the root *vri*. It means one who belongs to a flock, group, band, multitude, etc. or one who moves in group. It has been also used in the sense of a people belonging to roving bands or vagrant.³⁸ In the *Rik* and *Atharva-Vedas* it has been also referred to in the sense of troops.³⁹ But the meaning

of the term becomes clearer from Patanjali who says,

“Nana jatiyah amiyata-vrittayah,
Utsedha-jivinah sanghah vrdtah”.⁴⁰

It seems therefore that the *Vraatas* belonged to various groups or classes of people with no fixed profession and living by violence only. According to the commentators they who live by bodily labour are called *Vratinah*.⁴¹ (*Vratinasarirayasena jivati vratinah*). Here is undoubtedly a reference to the pre-Vedic Indians who were mostly nomads roving in bands and living by violence. It may be suggested here that the *Vraatas* were those pre-Vedic Indians who practised *Vrata*-rites as well.

Once it is recognised that all these terms (namely *Vrata*, *Vraata*, *Varana*) are derived from the root *vri*, it becomes clear that those who performed *Vrata*-rites and *Varana*, whose way of life was that of a *Vraata* or rover should become known as *Vratyas*. (*Vri-kta-shnya*). *Vratya* is thus a cultural term meaning a way of life characterised by distinct religious cults and practices. This way of life and cults and practices are all connected with the basic meaning of the root *vri*. This way of life and religious cults and practices are further associated with the un-Vedic Indians or un-Aryans.

Conclusion :—

In the process of Aryanisation and Brahmanisation the *Vratyas* were absorbed within the Brahmanical fold and their cults, i. e., the *Vrata*-rites were assimilated, remnants of which are still to be found in the lower strata of the Brahmanical cults and practices. This assimilation of the *Vratas* or the magico-religious rites of the *Vratyas* or of the pre-Vedic Indians began as early as the *Atharva-veda* and was almost completed by the time when the major *Puranas* were compiled. With Aryanisation and Brahmanisation of the people of Bengal, the non-Aryan and the pre-Vedic cults and practices, in a word, their whole cultural heritage passed into the Brahmanical build where it was transformed and re-transformed through centuries. In the process of Hinduisation the chief traits of the pre-Vedic *vratya* religion have become obscured or are rapidly disappearing before the onslaughts of modern life. But in the remoter villages, away from modern civilisation, amongst the lower orders of the society, they still survive, though in much modified forms. The old *vratya* cult of the pre-Vedic Indians still survive in different forms of many folk rites, particularly those observed by women. It can hardly be doubted that they are still saturated with primitive magic. In fact the folk-rites of the

Vrāta-type still observed by women, particularly the maidens of Bengal, have not yet been wholly built into the "temple of Hinduism" and contain much of the Vrātya culture of the pre-Vedic Indians.

References :—

- (1) J. B. B. R. A. S., Vol. XIX. pp. 357-64.
- (2) Proceedings of the Indian History Congress, 1946, pp. 109, 112. Divergent views have been expressed regarding the identity of the Vrātyas. See Indian Culture, Vol. III. pp. 166-67. Dutta, History of Civilisation in Ancient India, p. 203; Journal of Bihar Orissa Research Society, Vol. XIV. p. 26; Calcutta Review, 1926, p. 287.
- (3) Panchavimsa-Brahmana, XVII, 4, 1-9; Atharva-Veda, XV, 1-4.
- (4) Macdonell and Keith, Vedic Index, Vol. II. p. 343.
- (5) Journal of the Royal Asiatic Society, 1913, p. 159; Chanda, Indo-Aryan Races, p. 38.
- (6) "A-dur-ukta-vakyam dur-uktam ahuh, adikshita dikshita-vacham vadanti." Tandyā or Panchavimsa-Brahmana, XVII, 4. See S. K. Chatterji, Indo-Aryan and Hindi, p. 56. Dr. Chatterji assumes that "they developed Prakrit habits of speech in which conjunct consonants were assimilated".
- (7) Whitney, Atharva-Veda, Vol. VIII. p. 769. The Mahabharata clearly states that the three outcaste-classes and the Chāhḍḍalas, the Vrātyas and the Vaisya begotten by a Sudra or females of the Brahmana, Kshatriya and Vaisya castes respectively. ('Chandalo Vrātya-vaidyau cha brahmanvam kshattri-yasu cha vaisyam chaiva sudrasya lakshyante pasadas trayah'). See Muir. Sanskrit Texts, Vol. I. p. 481.
- (8) Kane, History of Dharmasastras, Vol. II. pp. 376-77.
- (9) A Vrātya is one who or whose ancestors did not go through the Upanayana ceremony. "After those (periods of men) these three (castes) who have not received the sacrament at the proper time become Vrātyas excluded from the Savitri and despised by the Aryans". Sacred Book of the East, Vol. XXV. Sl. 38-39, p. 37. It is further enjoined that "those sons whom the twice born beget on wives of equal castes but who not fulfilling the sacred duties are excluded from Savitri, one must designate by the appellation Vrātya". Ibid. Vol. XXV. pp. 405-7; Vol. VII (Vishnu), p. 115. It is clear from Manusmṛiti that anybody failing to be initiated within the time-limit and to perform sacred duties fall to the grades of the Vrātyas. Manu also gives an account of the different classes of people who sprang from the fallen or the Vrātya-Brahmana, Kshatriya and Vaisya. Thus from a Vrātya of the Brahmana caste spring the wicked Briggakantakas, Avantyas the Vatadhanas, the Pushpadhas and the Saikhas; from the Vrātya of the Kshatriya caste, the Ghallas, the Mallas, the Likhivis, the Natas, the Karanas, the Khasas and the Dravidas; from a Vrātya of the Vaisya caste are born a Sudhanvan, an Akarya, a Karusha, Vigan-Maitra and a Satvata. See S. B. E. Vol. XXV. Sl. 20-23, pp. 405-7.
- (10) S. B. E. Vol. X. 21. p. 406.
- (11) Manusmṛiti (Bangavasi Edition), p. 316. Manu even says that anybody sacrificing for the Vrātyas shall have to be purified by the performance of the Karikra-penance. See S. B. E. Vol. XI. p. 471. Even intercourse with a Vrātya is strictly prohibited and such a man is to be heavily fined.

- (12) S. B. E. Vol. XXV. p. 442.
- (13) Kane, History of the Dharmasastras, p. 796. "Hina ba ete hiyante ye vratyam pravasantī na hi Brahmacharyam charanti na, krishim na vanijyam".
- (14) S. B. E. Vol. VII. pp. 186-87.
- (15) Chanda, Indo-Aryan Races, p. 40.
- (16) Macdonell and Keith, Vedic Index, Vol. II. pp. 342-44.
- (17) According to Sayana it means a prayer (to be chanted) in the anushtub metre for (the regulation) of the fallen. See. J. B. B. R. A. S. Vol. XIX. p. 359.
- (18) Kane, History of the Dharmasastras, p. 96.
- (19) Panchavimsa-Brahmana, XVII. I. I.; J. B. B. R. A. S. Vol. XIX. pp. 362-3
- (20) I bid.; I bid p. 360
- (21) J. B. B. R. A. S. Vol. XIX. p. 359
- (22) Kane, History of the Dharmasastras, Vol. II. p. 387
- (23) J. B. B. R. A. S. Vol. XIX. p. 359
- (24) Proceedings of the Indian History Congress, 1946, p. 108
- (25) Bloomfield, Atharva-Veda, p. 94
- (26) Macdonell and Keith, Vedic Index, Vol. II. p. 116; Raychowdhari, Political History of Ancient India, p. 79; Atharva-Veda, XV. 2,1-4.
- (27) Atharva-Veda, Vol. VIII. 6. 28; XXII. 4,22. Chanda points out that in Bihar it is possible to recognise the representatives of these Brahmanas who were originally priests of the primitive Vratyas or un-Vedic cults of Magadha. These are the Gayawalas of Gaya, Bhabans, etc. See Indo-Aryan Races, p. 164
- (28) Proceedings of the Indian History Congress, 1946, p. 107
- (29) Chanda, Indo-Aryan Races, p. 37. Differences in the size of the sepulchral mound is recognised as a mark of ethnic differences. Rhys Davids, Buddhist India, p. 80
- (30) Chanda, Indo-Aryan Races, p. 40
- (31) Journal of Bihar and Orissa Research Society, Vol. XII. p. 147
- (32) Kane, History of the Dharmasastras, p. 386
- (33) Chatterji, Origin and Development of Bengali Language, Vol. I. p. 46
- (34) Ibid.
- (35) Journal of Bihar and Orissa Research Society, Vol. IX. p. 383
- (36) Ibid.
- (37) Griffith, Atharva-Veda, XIX. 66. 1; Deshmukh, Origin and Development of Religion in Vedic Literature, pp. 364-66
- (38) Kane, History of the Dharmasastras, Vol. II. p. 386
- (39) Macdonell and Keith, Vedic Index, Vol. II. p. 341. Sayana explains the word as referring to one who is regarded as fallen or degraded. Sayana refers here to after meaning of the term.
- (40) Muir, Sanskrit Texts, Vol. I. p. 313
- (41) Ibid.

NOTICES OF BOOKS

STERKFONTEN APE-MAN PLESIANTHROPUS

Robert Broom, J. T. Robinson and G. W. H. Schepers-Transvaal
Museum, Memoir No. 4, Pretoria.

SOUTH Africa's role in the fossil remains of the primates dates to 1924 with the discovery of the Taungs skull. Prof. Raymond Dart called it *Australopithecus africanus* and he was of opinion that it was a primate, somewhat intermediate between the higher anthropoids and man. The Taungs controversy raged for over 10 years. Dr. Robert Broom, whose inopportune death has been announced in the *Nature* of April 14, 1951, came to South Africa in 1934 with the Taungs controversy in mind. The Taungs skull belonged to a child and he was, therefore, after some adult remains. He came to know of the Sterkfontein caves and began his search there. On the 17th August 1936 an adult skull allied to *Australopithecus* was found. This has been given the name of *Plesianthropus transvaalensis*. The *Australopithecines* have been the subject of an earlier book by Robert Broom and Schepers.

In Part I of the present volume, Broom and his colleagues have assembled together all the finds of *Plesianthropus* discovered in 1947, as the earlier searches were largely stopped during the war. As a result of this effort *Plesianthropus* is better known than any other fossil primate—even better than *Sinanthropus*. It has yielded a few bones which have not so far been found in the case of any other fossil primate. The authors have laid special emphasis on the dentition and are of opinion that the anthropoid type of dentition has been unvarying for millions of years. Considering all the evidences at their disposal they are of opinion that the *Plesianthropus* is more nearly related to man than to the anthropoid apes.

In part II of the memoir, Dr. Schepers has separately studied the brain casts of the *Plesianthropus* skulls. He has worked out an approximate average brain volume of above 600 c. c. with a potential range of 400-750 c. c., which is much higher than that of the anthropoid apes. The sylvian fissure of the brain, which evoked some criticism from Weidenreich, has been found in one of the *Plesianthropus* (No. 8) skull

to be as deep as in man. 'Scheper's studies of the endocrania allow the following generalizations ; that the *Plesianthropus* walked erect, obtained some manual dexterity of the human type and "might have been capable of an organised system of vocal expression".

The authors propose to undertake detailed studies of the finds and much more remains to be done as they say, "our caves have so far only been scratched". The present memoir which is the result of only two years work, will really show the great wealth of the South African deposits. Dr. Broom's death at the beginning of such an enterprise is irreparable not only to South Africa but to all students of human evolution.

S. S. SARKAR.

TRIBES OF INDIA, PART II

Published by Bhartiya Adimjati Sevak Sangh, Kingsway Delhi,

Pages 207, Price Rs. 3/8/-

This is the second part of the Tribes of India (with a foreword by the case Shri A. V. Thakkar), and contains 28 articles contributed by "eminent anthropologists and social workers," and a Foreword by the President of India, Dr. Rajendra Prasad, who also happens to be the President of the Bhartiya Adimjati Sevak Sangh, the pioneer organization for tribal welfare in India.

All the articles, except two, one by Dr. B. S. Guha on the place of Adivasis in Indian life, and the other by L. N. Sahu on Symbiosis in the Aborigines, which give a general survey of tribal cultures of India in the context of changing conditions, deal with tribes of the country classified on a provincial basis. They detail the various ethnographical facts, and a brief resume of the activities of social welfare organisations, and the State governments regarding the rehabilitation of the tribal folk.

The aborigines of India, numbering about 25 millions, are a sadly neglected section of the Indian population, and inspite of the best efforts of many anthropologists, Indian and foreign, are leading to this day a life of ignominy, calumny, destitution, and stagnation. Contacts with materially superior cultures have bred in them a loss of interest in life, retarded their progress, and the folk-cultures of these autochthonous people of India stand in fear of detribalisation and decomposition.

Inspite of the fact that these tribes constitute a large part of our population, information about them is not easily available. There is practically no ethnographic literature in India, and whatever little there

is, is spread over a large number of reports and a few scientific monographs. Publication of information about them is, therefore, of great value, and the book will serve a useful purpose by educating public opinion, and bringing the backward tribes within the knowledge of the general public.

The work is of an elementary nature and necessarily suffers from a number of drawbacks and defects, chief among them being the immature knowledge and experience about the tribes by most of the authors, and hasty judgements about particular tribes or tribal cultures by some of them. Care, patience and caution are very much needed by all those who study the aboriginal cultures, and a 'go-slow' policy born out of a sympathetic understanding of the patterns of tribal life should be the watch-word of the social reformer. All the same, we hope the book will be of immense help to the welfare agencies by providing them with the various details of the tribes they deal with, and to the field-worker by stimulating greater interest in tribal welfare.

K. S. M.

BIHAR THE HEART OF INDIA.

By Sir John Houlton, C. S. I., C. I. E., I. C. S. (Retd.).

*Published by Orient Longman Ltd., 17, Chittaranjan Avenue,
Calcutta-13, pp. 223, Price Rs. 10-0-0.*

The description of Bihar as the Heart of India is likely to be challenged by peoples of Uttar-Pradesh, possibly not without some degree of justification; at the same time, one cannot lightly brush aside Mr. Houlton's case, that Bihar was the central point of the culture and activities of most of the Indian peninsula in the days of the greatness of Magadha, of Mithila and the Lichchavis and Vaisali of Gautama Buddha and Mahavira, and of the Mauryan emperors. In modern times, it has again attained position of central importance to the Dominion of India, this time through its vast mineral resources and its industrial centres.

The book is intended to provide visitors to Bihar, and others also, with a concise account of the history, antiquities, scenic beauties and places of general interest in the province, and is very much more than a mere guide-book. People who love Bihar and are interested in the administration of the province will find in it much useful material to help and guide them in their work, including suggestions for improvement of existing conditions. Besides being an excellent com-

pendium of information contained in old Statistical Tables, Provincial and District Gazetteers, it records also the results of personal observations of the author during visits to most of Bihar's ancient sites and beauty spots as well as to its industrial centres. Employed in his early career in Settlement operations in Chota-Nagpur and the Santal Parganas and later as Collector and Divisional Commissioner within Bihar proper, Mr. Houlton had ample opportunities for intimate contact with existing conditions in Bihar and with its problems for the future, and he took full advantage of such opportunity, attaching the proper importance to facts and not allowing imagination to run riot (as had been the case with an earlier I. C. S. author, with a still more facile pen Mr. Bradley-Birt, who could pass off the portrait of Babu Rakhal Chandra Sarkar, a non-Brahmin hailing from Bankura District of Bengal as that of a typical Chota-Nagpur Brahmin and a photo of a goat-sacrifice before Goddess Kali as that of priests sacrificing before Mahadeva at Baidyanath). Mr. Houlton's book can well stand comparison with Hunter's Statistical Account and Annals of Rural Bengal, and with the later date Provincial and District Gazetteers.

After dealing with the past history of Magadha, the author takes up all the divisions one by one, noting the interesting places and other special features. The most instructive chapters are the Santal Parganas Chap. XIII, the Santals and Paharias (Chap. XIV), Ancient Videha and Mithila Chap. XXIII to XXV dealing with Chota-Nagpur and its people, history and customs and are informative. In the concluding chapters, the author deals with the industry of the province, mineral resources, a chapter is devoted to the possibility of working of such valuable minerals as gold, copper and diamond. The author has devoted one chapter to Lac-industry as ninety per cent of the world's output of lac comes from India and at least half of India's production comes from Chota-Nagpur. The four Appendixes are "Administrative Division of Bihar Province with Population according to the 1941 Census, Travelling in Bihar, Forests and shooting Blocks, Land Tenure systems in Bihar". The note on the Bibliography of Bihar will help readers for serious study.

The many illustrations greatly add to the interest of the book. It is as fascinating as a romance, the style is simple, lucid and is charming—such a book should be read by all interested in the welfare of the Province and specially by graduates and undergraduates of Indian Universities.

The get-up of the book is unfortunately not in keeping with the

high standard of its contents. It would be advisable to bring out a de-luxe edition which would be more to the taste of tourists from abroad among whom will possibly be the most numerous of its purchasers. And, in this second edition, a few more beauty spots in Bihar which have escaped mention till now, may be referred to, e. g. (1) The Rajrooppa cascade and temple of *Chhinmasta*, at the point where the Damodar receives its tributary known as the Dhara, a few miles east of Gola in Hazaribagh District (2) The man's head of gigantic proportions on a rock projecting above one of the temples (the *Madhusudan* temple) at Mandar, near Bausi in Bhagalpur District and (3) the majestic banyan tree with hundreds of hanging roots, close to the Purulia-Ranchi Road not very far from the Bansa monolith in Manbhum District.

ENCYCLOPEDIA OF INFORMATION & GENERAL
KNOWLEDGE 1951,

*Edited by S. N. Sarkar, M.A., B.L., Published by Kamla Book Depot,
15, Bankim Chatterjee Street, Calcutta, Price Rs. 4/-.*

Our civilisation is moving fast, intercourse with countries abroad has become easier through the invention of radio and aeroplane. To keep abreast with all the information necessary for proper understanding of the people of the world, such a book is indispensable and every student, businessman and man with other vocations of life should provide themselves with a book of knowledge close-at-hand. It is not a book of the ordinary type of Year books, but contains many other valuable informations. The book has several new features, a glimpse into the contents will show some of the topics it deals; some of the most interesting and instructive are "*Geology, Synopsis of human evolution*", "*Prehistoric relatives of man*", "*Prehistoric Ages*", "*The growth of primitive society and Culture*", "*A Pageant of World Culture*", and "*Chronological out-lines of World History*". The other topics generally dealt in Year Books are, of course three. The treatment is logical and the editor has taken great care in making the book useful to all those interested in keeping themselves up-to-date.

THE TRIBAL & SOCIAL WELFARE

*By Syed Khwaja Abdul Gafoor, H. C. S., Director, Social Service
Department, Government of Hyderabad, Publication No. 11
by the Department of Social Service, Government Press,
Hyderabad (1951 A. D.) pp. 91.*

This publication aims at a proper understanding of the people in society. The main problem of which is "to lighten our burden in life as devotion to tasks which promote the amelioration of suffering and sorrows in others". "Social service" says the author, "is not courtesy but understanding, not sermons but sympathy" but the subject matter of the book does not show that the author has shown much knowledge or understanding of the Tribal Problem. The writer begins by giving an amateurish summary of the approaches to an understanding of human behaviour into (1) religion, including emotional and sentimental nature of mankind (2) biological, namely, heredity, structural defects, functional disorders, race improvements (3) medical, including health and heredity (4) psychological including habits and behaviours, intelligence, instinct and learning (5) psychiatric, under which comes mental life, wishes, emotions, needs and repressions (6) economic in which wages and standards of living are the main and outstanding factors (7) sociological which includes group life and social relations. Many, of these are not independent approaches as the writer thinks.

Chapter II of the book deals with Tribal welfare. Herein the Indian Constitution dealing with social problem is discussed. Chapter IV, the Role of Panchayets in Tribal Life and Chapter V, welfare of Adi Hindus are interesting studies. In the concluding portion, a list of publications of social service department is provided.
